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JANUARY 1989

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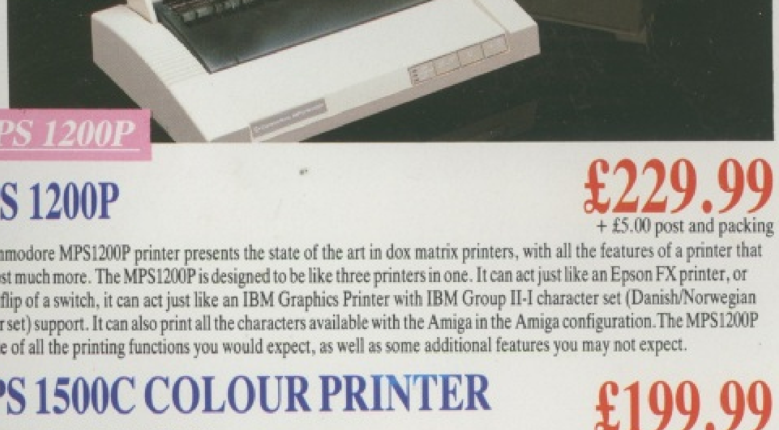

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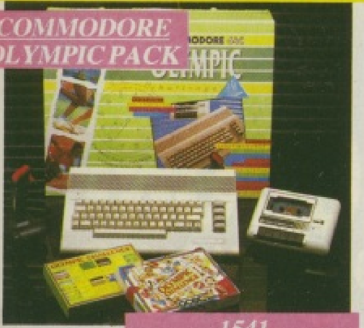

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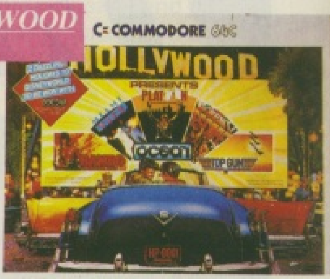

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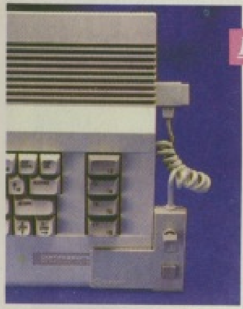

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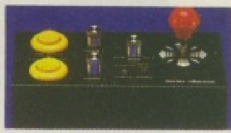

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CCI View

Dear CCI Reader,

In the letters pages this month, there are some very interesting and sharp points made by readers. One launches into an attack on Commodore, another suggests sponsorship could lower the price of software. "CCI is helping the pirates!" goes one accusation and another reader says that there ought to be different reviews for cassette and disk versions of games. Very often readers letters are the clearest sign of the kind of person buying a magazine. In each of these the case is well-argued, even if we might disagree. They are, as usual, with CCI readers well worth listening to especially if you want to find some controversial stuff. At CCI we like to hear what you are thinking about even if we are the ones you take out your frustrations on. Please keep your letters coming and go on telling us, in no uncertain terms, what it is bugging you.

Although this issue of CCI is dated January 1989, for production reasons, it is prepared as early as November 1988. This means that we cannot include all the flood of games that pours out, in ridiculous competition some think for a limited number of buyers at the end of the year. Can there be too much choice of games? Yes, there can, good material is sunk out of sight in the unnecessary overload. Especially, as at some other time it might be better launched and accepted. But the software industry, especially the entertainment side, follows fashion slavishly. If one company buys a big arcade license then another has got to follow suit. Christmas? It doesn't matter if every one is bringing out loads of games, everyone has got to get theirs out too!

Oh well, a little sanity may be restored by looking into the future . . . The future won't be perfect but to judge from our feature on cars and computers at least what goes into them is going to be very useful indeed . . .

Someone has said that the car was not properly "invented" until the 1930's and since then we have just been perfecting it. If you apply the same idea to computing technology you could guess that we might be only about a tenth of the way toward "inventing" the computer. So it is not surprising to see the electronic developments in cars outpacing those in other "domestic" environments.

However as we face another year, looking back — as we do in another feature on the "megastar" games — the standards of programming especially on the 64 and the Amiga have risen enormously. Programming tricks and improvements spread quickly among the software community and the real innovators startle us only for a short time. The extraordinary soon becomes the accepted norm . . .

In 1988 we have seen a big jump forward, bigger than many might have thought would happen. If we move on at the same pace through 1989 — and technology never seems to slow down — where we will be in a year's time is hard to imagine. Only human nature doesn't seem to change and I'll bet you there will be another flood of Christmas games, and more crazy competition to impress, dazzle and get you to spend your money on the lastest extra-special product. And all the time technology will be speeding on . . .

From all of us at CCI, have a great 1989 and no matter how fast it goes, enjoy every minute of it!

Antony H. Jacobson
Managing Editor and Publisher

CCI EDITORIAL ASSISTANT

Would you like to work on CCI and other magazines? We have a position for an Editorial Assistant. No, we don't need another games reviewer. We want someone who is computer literate to a reasonable standard — probably who has used several machines and is 18 or over. S/he should live in or close to London, or be prepared to move to North London:
Antony Jacobson
Managing Editor, CCI, 40 Bowling Green Lane, London EC1R 0NE.

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Telephone 01-278 0333
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Published by Croftward Limited
Finsbury Business Centre
40 Bowling Green Lane
London EC1R 0NE
Distributed by Comag,
Tavistock Road, West Drayton,
Middx. UB7 7QE
Typsetting
Bedfordshire Graphics
Printed by Chase Printers Group

Commodore Computing International — an Independent magazine for Commodore computer users — is not connected in any way with Commodore Business Machines UK Ltd. It is published 12 times per year by Croftward Limited. The publishers do not accept liability for any incorrect statements of errors contained in material from independent sources or authors which may be reproduced from time to time.

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IBM clean up costs $82m

IBM will spend over $82 million to clean up a massive toxic chemical spill in Silicon Valley that is threatening the drinking water of local residents with cancer causing chemicals.

The Silicon Valley Toxics Coaliation — an environmental group — fears that the clean-up operations will endanger the health of local residents.

Ted Smith, director of the group, said: 'IBM has been told by the regional water quality control board that it must recycle all the water from the tainted undergroun acquifiers. There is no way that all that water can be used for agricultural irrigation. Some of it will have to be used for drinking water.' The IBM clean-up operation involves treating over 1 billion gallons ayear of contaminated underground water.

After treatment, the water will still contain minute levels of chemicals used in electronics, manufacture which are linked to cancer and heart disease in humans.

Chemicals from the IBM site have spread for up to five miles and have forced the closure of wells used for drinking water. IBM estimates it will take up to 20 years to remove the chemicals from the water. As one of the first results of a new environmental statute in California IBM has been forced to pay $82 million to clean up the area it occupies in Silicon Valley.

Gremlin's 'Total Destruction and Devastation'

Watch out for The Muncher — it's a game Gremlin tells us of 'total destruction and devastation'. You control the exploits of a rather large and angry pre-historic monster who is out to destroy everything he runs in to. All the drama takes place in Japan where some explorers have unearthed and stolen some eggs and brought them home with them. The game begins as you arrive on the coast of Japan in search of the lost eggs which have been scattered around the cities. Of course the armed forces are swarming about the towns like ants and you subsequently have to battle your way through the cities and army based carrying out your plan of "urban re-development" as and where the fancy takes you!

During the course of your journey, you'll come across the lost eggs. Once you have located them the search will be on to find a nuclear waste dump in which to bury them. Not only are these sites very tasty and invigorating, but you'll also want to lay more monster eggs there too. Utilising these sites, you'll create more monsters to carry on should you fail.

Since Japan is such a small place (only as big as the U.K.!), and with all this monster activity in the surrounding sea, it's not surprising that you will encounter other monsters during your exploits. Like you, they too feel a rather intense need to express their deeper emotions by means of violence and destruction. If you are to succeed in your mission you must defeat all three enemy monsters.

Available from Gremlin on Commodore 64/128k cassette and disk.

PC Hungary

PCs including CBMs are becoming popular in Hungary. Of computers in the country 32.6% are PCs, and 66% of those are made in the West. In the first half of this year 3,320 Hungarian made PCs have been sold.

Barry McGuigan — By Fair Means or Foul

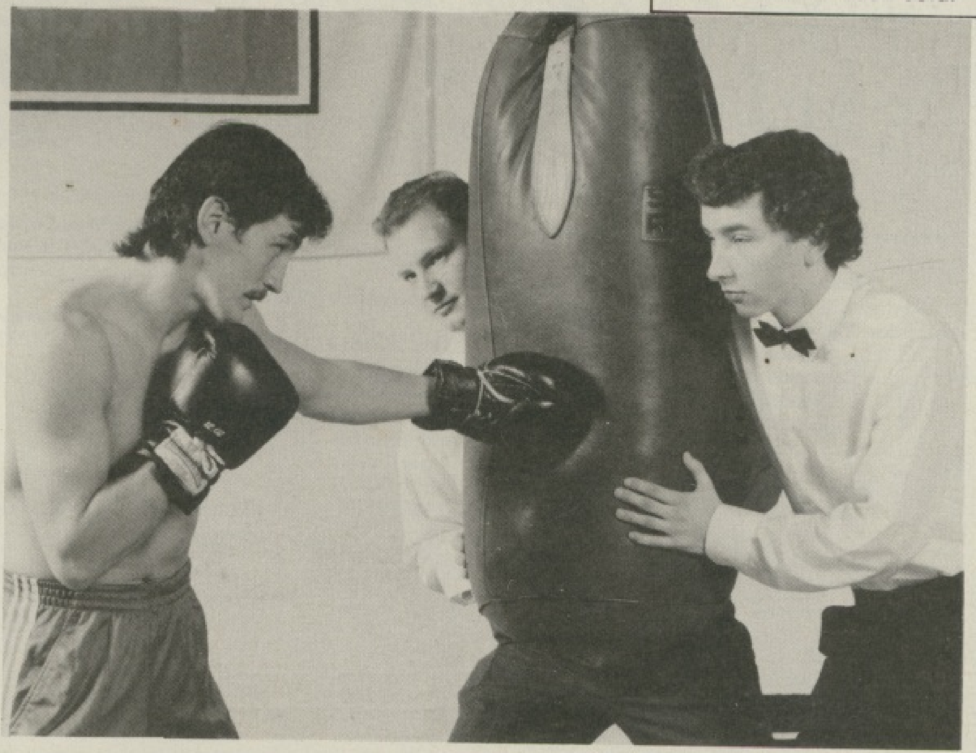
Taking time out after a long sparring session, Barry McGuigan, probably the UK's most respected boxer of recent years, took on a new and unique opponent — the new Superior/Alligata game By Fair Means or Foul.

Billed as the first truly realistic boxing simulation game, By Fair Means or Fou allows you to use moves that would make the Marquess of Queensberry turn in his grave. Since he compiled his rules for boxing at the end of last century, Head Butts (South Korean style!), Kneeing, Groin Punches and Kicking have all been outlawed and the referee will disqualify anyone who uses them. Unless he isn't looking!

That's where the skill comes in. In By Fair Means or Foul you can use a wide range of punches, including those foul ones outlawed so long ago, but you'll only get away with them if the ref is distracted. By both skill and stealth, you fight your way from rank-outsiders to World Champion — a struggle which is familiar territory to Barry McGuigan.

Prize Competition

If you succeed in becoming the World Champion in the game, you can enter our competition, with prizes of superb boxing trophies, £200 and congratulatory certificates signed by Barry McGuigan. Commodore 64/128 (C) £9.95; (D) £11.95.



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To demonstrate the power and versatility of this graphics language, we have created Basic Paint, a flexible icon-based drawing application program. Basic Calc, a full featured spreadsheet and Basic Write a simple to use word processor with a multitude of fonts. Also included is an icon based desk-top utility which provides quick and convenient access to each of your own Basic 8 creations.

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▷ Commodore 1581 Disk Drive

The New Commodore 1581 drive is now available for the C128 or C64. This drive offers one megabyte of memory, THREE THOUSAND ONE HUNDRED AND SIXTY blocks free, (800K formatted capacity), and a very fast EIGHT THOUSAND Characters per second loading rate. Software for this new drive includes, VizaWrite Classic, HackPack, Petspeed, Oxford Pascal, CAD PAK, Chart Pack, Fontmaster, Spellmaster and much more. Using a package called Super 81 Utilities most software can simply be copied across to the new format. The drive is available for **– £184.95.**

▷ Warp Speed

An incredible accelerator cartridge for the Commodore 128 and 64. Warpspeed has a switch that allows you to select 128 or 64 mode. The features of this cartridge apply to 1541, 1570, 1571 and 1581 disk drives in 64 or 128 mode. These features include loading, saving, formatting and verifying 10 times faster, extended DOS commands, print screen, disk and file copy, built in machine monitor, built in track and sector editor and much more. **Only £34.95.**

▷ The Big Blue Reader

New from SOGWAP Software Inc., The Big Blue Reader is ideal for those who use IBM PC compatible computers at work and have the Commodore 128 or 64 at home. The Big Blue Reader is not an MS-DOS emulator, but rather a unique and easy way to transfer word processing, text and ASCII files between two totally different formats, Commodore and MS-DOS. The Big Blue Reader requires a 1571 on both the Commodore 128 and 64 and will not work with a 1541 or similar drive. **Only £44.95.**
(Upgrades £7.50)

▷ Twin Cities 128

NEW

This is not just another book, it is the new Bible for all 128 users. It contains hardware and software reviews, rumours, opinions and mayhem about the 128 over the last two years; software tricks for most common packages; exploring and programming the 128 and machine language programming. Other topics covered include CP/M, all add-ons including the 1581, 1571 and 1750 RAM units, choosing software, Basic 8, expanding your 128, GEOS, graphics and sound. This book was written by the well known Commodore names, Jim Butterfield, Todd Madson, Fred Bowan and Loren Lovhauq. **Only £12.95.**

▷ The Programmers Notebook

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▷ Home Designer 128

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Forget the name this is not a kitchen planner, it is probably the most advanced CAD system for the C128 computer. Home Designer allows you to create extremely detailed and accurate drawings at virtually any scale, with any resolution approaching a plotter. It offers accurate scaling, a powerful command set and up to five drawing layers. Why is Home Designer better than the rest? It is the only CAD system which allows layers of diagrams to be drawn and then laid upon each other in any order. Home Designer has an advanced zooming feature, allowing you to actually increase the drawing resolution, unlike other programs which simply display fat dots on the screen. Most dot matrix printers and plotters are supported and Home Designer works with a Commodore 1351 mouse.
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▷ The CP/M Kit & Users Guide

The CP/M Kit introduces and explains the unknown, third mode of the C128. The CP/M Users Guide is a 300 page book by Abacus Software covering all aspects of CP/M. Subjects which include the system disk, resident commands and disk copying are described in detail. The CP/M kit contains over 20 CP/M programs including a word processor, chess game and a disk cataloguing program accompanied by a detailed guide to running programs in CP/M. The CP/M kit and Users Guide.
Only £34.95.

▷ Super Disk Utilities

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▷ Merlin 128

Merlin, a complete macro assembler editor system for the 128. It includes a full screen editor, sourceror to disassemble programs, print filer to save assembled listings as text files and a relocating linker. It supports local and global labels, entry and external label definitions, and includes several macro libraries. Merlin 128 is supplied with example programs and a detailed manual.
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I.C.P.U.G. Hits Ten

I.C.P.U.G. the Independent Commodore Products Users Group is ten years old. Ten years ago, when personal computing was in its infancy, there were two computers available for home and small-business use. One was the Tandy TRS80, the Commodore PET. Within a few months, in the summer of '78, a group of enthusiasts and computer professionals banded together to form IPUG, the Independent PET Users Group.

Now, ten years on, that group is still active, under its new title of *Independent Commodore Products Group.* With over 4000 members, it has grown to be the largest and most lively independent computer club in the U.K.

ICPUG exists helps and supports users of *all* Commodore equipment. The PET in all its versions is still supported with technical help and a vast software library, but all the later machines are also well catered for. There are software libraries for the VIC20, the CBM 64, 128, 16 and +4, and of course the PCs and the Amiga. Contact: ICPUG, 22 Ivybridge Road, Styvechale, Coventry, Warwickshire, CV3 5PH U.K.

The ICPUG magazine, which enters its 11th year of publication this month, is considered the most authoritative journal of technical information on Commodore Machines in the world.

E.A. goes One on One

Electronic Arts has announced the release of Jordan vs Bird: One on One, a basketball simulation which pitches the skills of America's two leading basketball simulation which pitches the skills of America's two leading basketball players, Michael Jordan, top scorer of the Chicago Bulls and Larry Bird, from The Boston Celtics, against each other. It is the follow-up to Electronic Arts most successful sports simulation, Dr J and Larry Bird Go One on One, released in 1983. The sequel showcases graphics, sound and special effects.

Jordan vs Bird: One on One illustrates the unique skills of both players as Jordan "The Slammer" and Bird "The Shooter" compete in three separate events, the classic match-up, One on One, the Slam Dunk Competition, designed by Jordan and Bird's signature event, 3 point Shoot-out.

A statistics screen will tell the real story of the game after every quarter, the shots taken, shooting percentage, three pointers taken and made, rebounds, steals and blocks. Even the crowd participates in Jordan vs bird and Earl Weaver, Chuck Yeager, John Madden and Dr. J are there to watch.

Jordan vs Bird is E.A. say "the ideal program for the office. If the boss comes by just press a button and a spreadsheet will appear." Price £24.95, C64 disk £14.95.

Compunet goes green

Compunet Teleservices Ltd has announced a new boss Nick Green.

Nick has been brought in to develop Compunet's Open Systems policy. He has particular interests in data compression and in animation which will shape the future evolution of the Component design.

"We're spending this Christmas reminding people of our fourth successful year and talking to users, staff and suppliers about our strategy for the New Year."

Green continues: "By now we must have the largest library of 64/128 software in Europe with special tools for production of Compunet's famous demos in sound and animated high resolution graphics. The users are probably the most talented and technically informed on any online service.

"Last year the Amiga and the Atari ST were selected by Compunet for support. Their superb presentation software interacts with hundreds of programs, demos, and text/graphics frames in our library as well as Compunet's standard-setting real-time chat facility (PartyLine) and multi-user game (Federation II)."

Nick Green has a long history of CBM involvement and worked for Commodore when it set up Component in 1984.

Accodata's Copyholders

INCORRECT operator positioning when entering data into a computer or word processor can cause errors, fatigue and loss of efficiency, say Accodata.

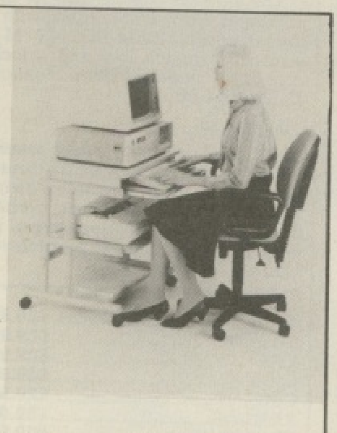
Accodata has now extended its range of manual and electric A4 copyholders to include A3 sizes and versions with swivel arms combined with reading lights and magnifying line readers.

The Accodata manual copyholder, designed to stand firmly on any flat surface beside the PC, is now available in A3 size at £119 is intended to combat this. Adjustable swivel arm versions which clamp to the desk edge and so take up no desk space are now introduced for all styles in A4 and A3 sizes at £62.50 and £80.45 respectively. The ergonomically designed base stand permits the A3 copyholder to be positioned between the keyboard and the screen in the most comfortable position. Correct copy positioning helps to minimise the operator's head movement and avoids unnecessary fatigue, particularly on long intensive data entry jobs.

The deluxe electric copyholder incorporates a foot operated line reader/cursor (£169). An low heat output reading lamp (£70.35) can be added where natural or existing artificial lighting conditions are not ideal. A magnifying line reader/-cursor can be specified if the operator's type of work involves keying in lots of small print data (£26.25) and A3 version of all the above are available.

Contact: Accodata, Tel. (0732) 885555.

Workstation in Orbit



Rexel's new Orbiter workstation, a compact and stoutly built unit is one of a new series of Rexel units designed to provide maximum computer facilities in minimum space.

The top shelf has cable cut-out for vdu and cpu, and the roll-out keyboard shelf, which has a vertical clearance of 65mm, is fitted with an anti-static mat. The printer shelf has a detachable paper catch-basket, and there is a bottom shelf to carry continuous stationery.

The Orbiter is made from tubular steel, with shelves finished in 18mm wipe-clean grey laminate, and it is fitted with easy-glide castors, two of which have brakes. Overall dimensions, excluding the paper catch-basket, are 750mm(W) x 750mm(H) x 525mm(D), costs £169. Action Computer Supplies, Abercorn Commercial Centre, Manor Farm Road, Wembley, Middx, HAO 1WL.

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COMPUTERS WITH WHEELS

Rico Gusman deserts the airbrush and drawing board for a test drive on the computer literate cars of the future

It seemed like a good idea at the time, asking our editor if I should go up to the Motor Show at the NEC in Birmingham. But getting up at 5.00am on a cold dark October morning, the idea seemed to lose its gloss somehow. . . .

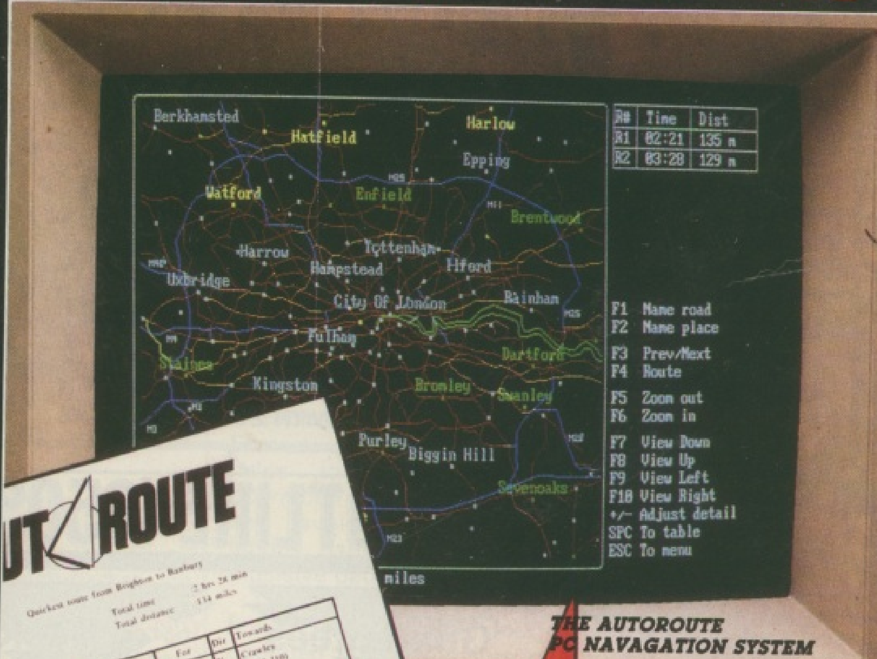
You may be asking 'What is my favorite COMPUTER magazine doing, covering the Motor Show?'. Well the answer is simple. Cars and computers are becoming one and the same machine. There is a current advertisement on U.K. TV showing 'the car of the future' as imagined 30 years ago with all the computerised characteristics available now, not in the year 2000 as predicted then. Already computers control fuel systems, engine tuning, suspension systems, in car entertainment, electronic readouts etc. With navigation systems, telecommunications and the actual driving of the car all just around the corner. At the let's take a closer look at some of the interesting things we can look forward to.

IN-CAR NAVIGATION SYSTEMS

This is one of the most exciting developments that we can look forward to in our cars of tomorrow. The idea of just being to get in a car and receive directions to our destination is something that has been with us for many years, but it is only now that technology has caught up. One company that has developed a system you can use today is Bosch, with their Travel Pilot. This comprises a small pod that fits on to the dashboard and looks like a small green VDU. The idea behind this unit is to enter the vehicle position, and then the final destination, using the buttons on the side of the console. This clever box of tricks then shows the vehicle's position, and then different scales can be selected so that the full route can be shown including local areas by switching on to a higher scale.

The resolution of the maps is very clear including street names. Bosch say that digitised maps are available for the U.K., Germany and France with other European countries in development. Current maps will be updated at regular intervals. This is definitely one to watch for.

Another system that caught the eye is not an in-car system at the moment but a home micro-based system called Autoroute. At present it is for IBM and compatibles and also the Atari ST. But wait for it! An Amiga system is on its way! What this system does, is offer (in my opinion) the most


Berkhamsted
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Rainham
Fulham
Dartford
Staines
Kingston
Bromley
Swanley
Purley
Biggin Hill
Sevenoaks
miles
R# Time Dist
R1 02:21 135 m
R2 03:20 129 m
F1 Name road
F2 Name place
F3 Prev/Next
F4 Route
F5 Zoom out
F6 Zoom in
F7 View Down
F8 View Up
F9 View Left
F10 View Right
+/- Adjust detail
SPC To table
ESC To menu
UT ROUTE

THE AUTOROUTE PC NAVAGATION SYSTEM

Map display with EGA screen: in th centre an arrow driven by mouse or keys; on the right the summary of

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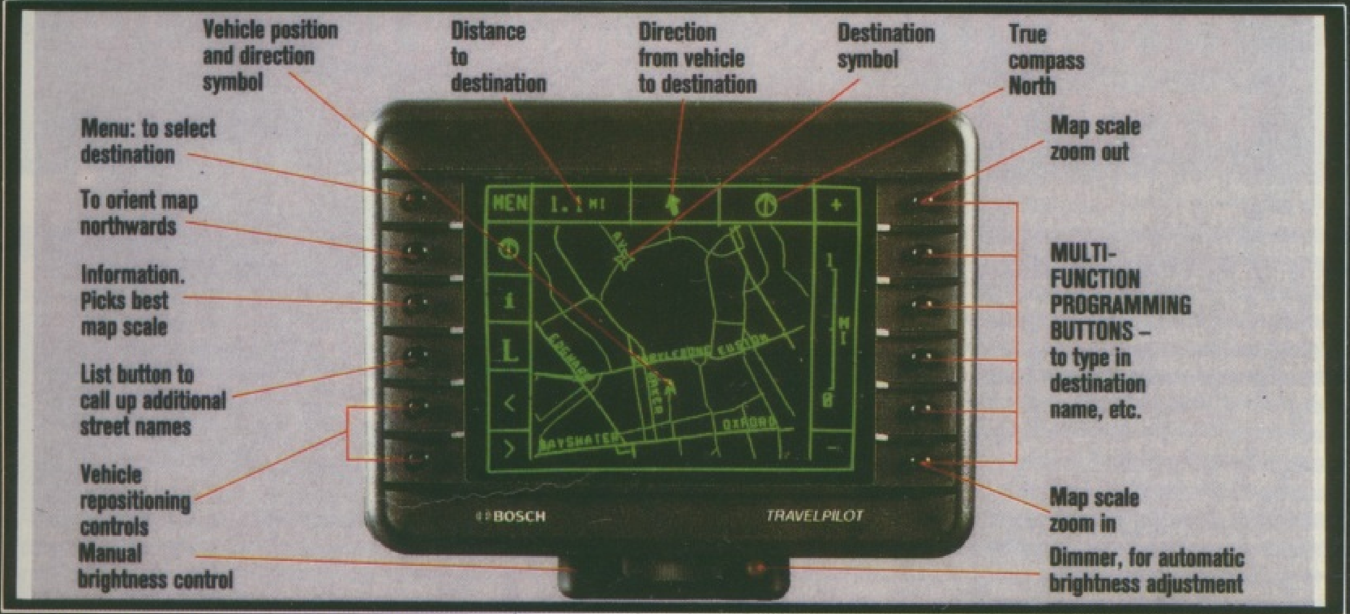
Vehicle position and direction symbol
Distance to destination
Direction from vehicle to destination
Destination symbol
True compass North
Menu: to select destination
Map scale zoom out
To orient map northwards
MULTI-FUNCTION PROGRAMMING BUTTONS – to type in destination name, etc.
Information. Picks best map scale
List button to call up additional street names
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MEN
1.1 MI
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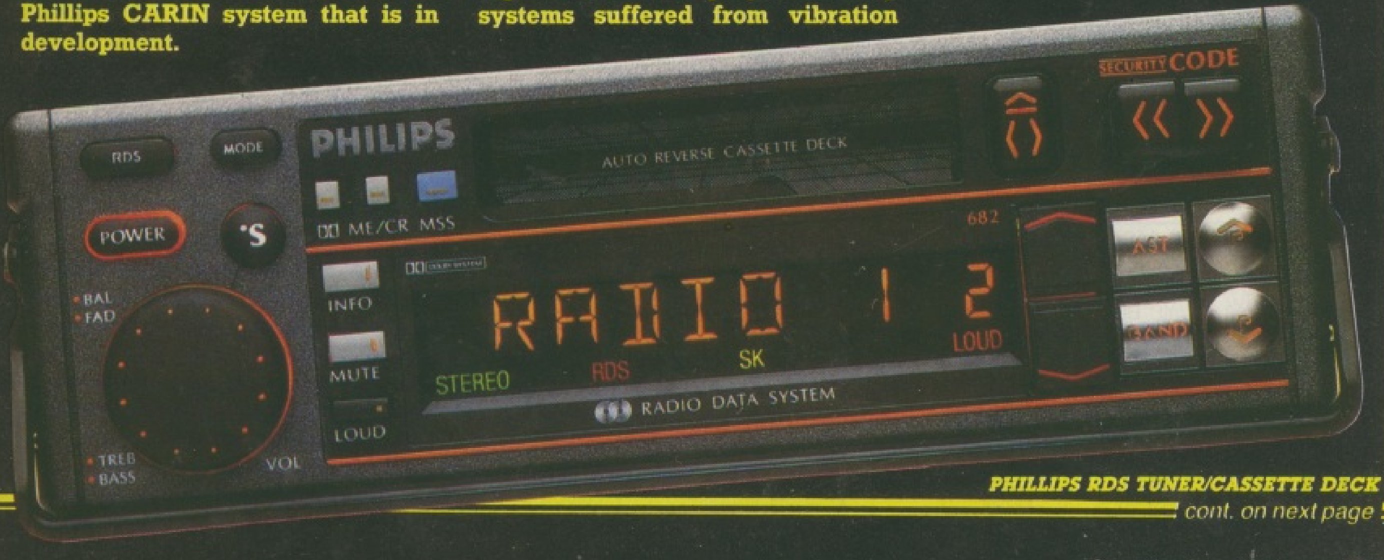
— MOTOR SHOW '88

Part 1

This system is fast and efficient, offering excellent value. Mini-cabs and HGV companies could find this sort of system invaluable. Next month we will introduce you to the Phillips CARIN system that is in development.

IN-CAR ENTERTAINMENT

Those of us lucky enough to have use of or access to CD's will be in no doubt of the quality and convenience of them in our home Hi-Fi. However it is only now that the electronics companies are perfecting in-car CD players. Early systems suffered from vibration problems and not being very reliable. Today's systems are starting to replace the usual cassette/tuner decks found in top cars, and most manufacturers offer CD decks in their line ups. Alfa Romeo are one of the first companies to offer a CD as standard in


PHILIPS
RDS
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AUTO REVERSE CASSETTE DECK
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682
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LOUD
RADIO 1 2
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RDS
SK
LOUD
RADIO DATA SYSTEM
BAL
FAD
TREB
BASS
VOL
AST
BAND

PHILLIPS RDS TUNER/CASSETTE DECK

cont. on next page

continued from page 11

COMPUTERS WITH WHEELS — *MOTOR SHOW '88*

their new Alfa 164 Lusso model.

Some CD decks can even play multiple disks mounted in a special unit in the boot of the car. Is this the end of the tape in cars? Well, yes and no, because in the next few years cassettes may go but just around the corner we will have in-car DAT. For those of you not familiar with DAT or Digital Audio Tape as it is known it is a tape about two-thirds the size of a compact cassette but it can record a signal digitally on an appropriate DAT deck. This means that you will never lose quality from the first recording or the tenth.

Phillips already have a DAT deck for the car. Though it is not available in this country at present but look out for it in 1989. . . .

Another new system that may change the way we drive will be RDS. This is a little like Teletext for the radio. A car radio with an RDS decoder would be able to receive the latest traffic updates displayed on the front of the deck. By 1990 most of the country should be covered with transmitters that will send out a tiny inaudible signal with the radio station and the station will also be displayed on the tuner, and as you drive across the country the tuner will automatically keep retuning whilst in the radio stations transmitting area. Having seen this system in operation, it certainly seems very efficient and could help many drivers avoid major roadworks and to have advance warning of an accident somewhere on-route.

Next month I will be looking at CD's that hold maps and other kinds of data and showing you some of the more exotic experimental highly computerised cars that the auto-makers think we may be driving sometime in the not-too-distant future. 'Car of the Future'? You may be driving it sooner than you think!

R.G.

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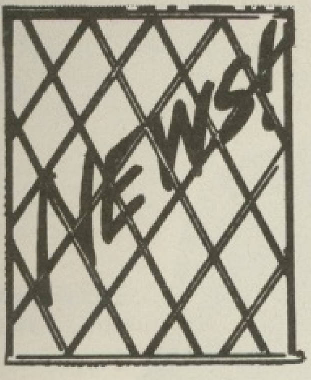


Hare Today, Gone Tomorrow

Dennis Cross, head of the corporate recovery practive at Peat Marwick McLintock's Cambridge office, has recently found himself in possession of an unusual liquidation asset. It is the internationally famous Jewelled Hare of Masquerade, first made in 1979 as part of the concept of the hugely successful treasure hunt book, *Masquerade* by Kit Williams. It will go for auction at Sotheby's on 5 December.

Mr Cross is handling the winding up of Haresoft Ltd, a computer games company set up- in 1984 to exploit as its first product a game based on the concept of the Masquerade treasure hunt. The first acquired the right to purchase the Golden Hare from its finder for a sum of £20,000.

The story of *Masquerade* concealed a series of elaborate clues to the location of a treasure, the Golden Hare, which has been buried in an earthenware jar in the dead of night at a spot known only to the author and a single witness, the TV personality Bamber Gascoigne.

Immediately the book was published by Jonathan Cape in August 1979, treasure hunters took up the challenge. Reprints of the book had to be recorded to keep up with a huge demand and a total of 4.5m copies were sold worldwide. At one stage, Laker Airways were bringing in charter flights from the USA and presenting passengers as they left the aircraft with spades to help them search for the Golden Hare. The fever lasted for two years until in 1982, the Golden Hare was discovered by a still anonymous man.

The Cross' Hare

These events set the stage for a series of copycat treasure hunts some of which caused serious environmental damage. Cadbury's Golden Egg hunt had to be called off because of adverse publicity and thereafter, it was widely accepted that in future any similar project would have to be of a nature which could not cause damage.

Haresoft's computer game version of the treasure hunt had two parts, Prelude and Finale and it was anticipated that it would take 18 months to two years to solve the puzzle. The prize for correct interpretation of the clues and pinpointing the location of the Golden Hare was a choice of the jewel or a cash prize of £30,000.

However, the software ws plaqued with problems and Haresoft went into liquidation. Dennis Cross, finding the Golden Hare as the chief asset of the company, decided to send it to Sotheby's for valuation and auction. 'It is an exceptional item to find in a company's possession in such a situated', he comments. 'Selling it at Sotheby's is clearly the best way to make the most of its rarity value'.

COMPUNET SETS NEW RECORD

OVER 100 new programs were uploaded onto Compunet in the first week of September, setting a new record for the ever-busier network. They were among over 2,000 items put onto the net by members in its most hectic week yet.

The programs covered the CBM 64/128, Amiga and Atari ST, the three machines for which Compunet is currently available. They range from utilities and development software to demos, art, music and games.

Compunet claims to be "Europe's biggest and most original on-line library of free CBM software," with around a thousand CBM 64/128 programs on the net at any one time and over 350 for the Amiga.

Besides software, members also contribute hundreds of pages of reviews, information, features, news etc to the net each week.

Compunet recently had to take on extra mainframe capacity to cope with the ever-growing flood of input. While to help keep netters up to date, members have now started a service to monitor and review the new items which appear every few minutes.

Every Compunet member has the right and facilities to upload text or programs at will, through any of the net's 70+ local phone numbers in the UK and Eire.

Contact: 01-997 2591

Worms turned down

The future of write once optical disks — known as worms — looks less bright with the announcement by Philips & Du Pont Optical that it has an erasable optical disk ready for shipment.

Philips & Du Pont said the erasable or rewritable 5¼-inch disk will be available in the US shortly and will be ready for Europe before the end of the year.

Anders Rehnberg, sales manager at Philips & Du Pont said that although 12-inch write once disks are safe for a couple of years, there is no future for 5¼-inch disks.

He said that there would be less demand for write once disks, which can only store information, now that erasable disks which can be rewritten, are available.

Other disk manufacturers are now racing to produce an erasable disk and Olivetti says that its research is nearing completion.

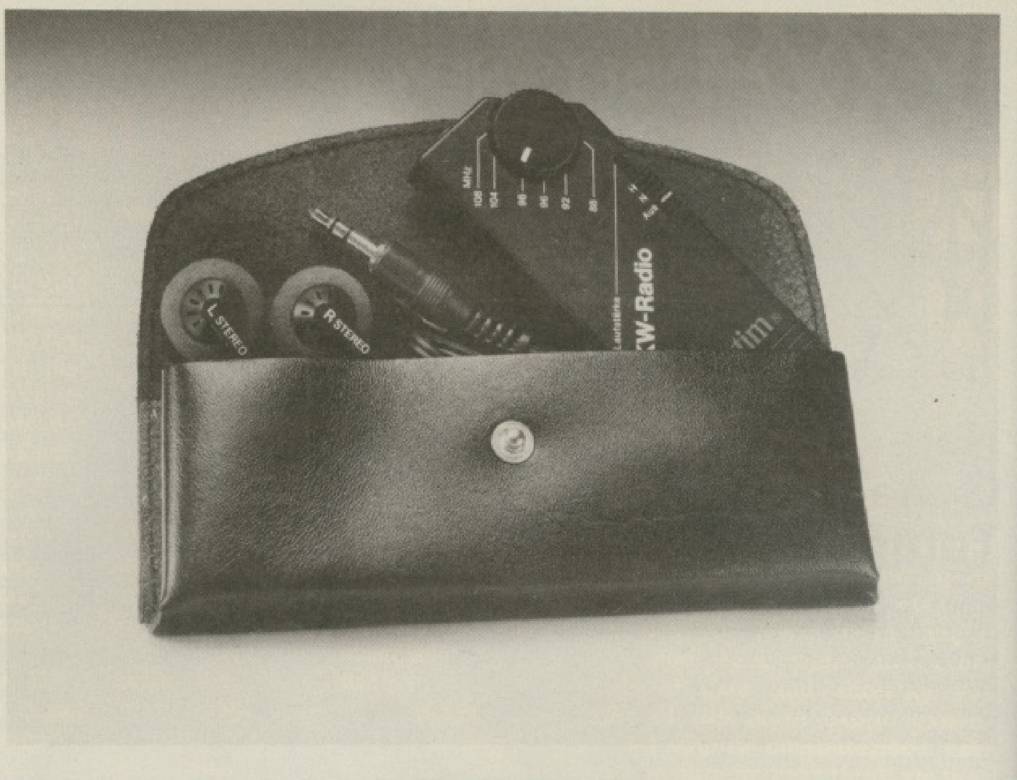
Verbatim = Radio

'personal' fm radio, designed to fit comfortably into the smallest pocket or handbag, is offered free by Verbatim with every five boxes of Datalife, Optima or Datalife Plus diskettes ordered from Action Computer Supplies. The radio is supplied complete with batteries, carrying case and headset.

Action has also reduced the prices of the Verbatim diskettes. The price of Datalife 5.25in, 48tpi, DS DD, diskettes is down from £11.50 to £10.95 per box of ten one-off, with the £100+ price down from £9.19 to £7.69 per box. In addition, every box of these diskettes is currently supplied with an eleventh diskette free of charge.

The Datalife 96tpi, DS HD, (1.2/1.6MB) diskette for the IBM PC.AT costs £20.50 per box of ten one-off, reduced to £17.60 for two boxes or more, and to £14.69 when included in any order over £100,000.

Contact: Action Computer Supplies, Abercorn Commercial Centre, Manor Farm Road, Wembley, Middx HAO 1WL. Tel: 0800 333 333.



Dig This!

As another digging season draws to a close, the staff and volunteers at Europe's largest archeological site are looking forward to a winter of computing with Commodore equipment.

The Helserton Project covers several acres of North Yorkshire moorland and was originally the site of both a Roman and Anglo-Saxon settlement. Today it plays host to dozens of professional and amateur archeologists and an impressive array of hi-technology.

The site's principal archeologist is Dominic Powlesland. Not content with being one of the UK's foremost experts in early-British history, he has also taught himself to design and develop a powerful computerised database of the site and its contents.

Originally developed on a Commodore PC60 (a 80386 clone), the site data base is gradually being transferred to an Amiga 2000 graphic workstation.

The original system presents the site as a 2D map. Using a mouse-driven interface, the user can define an area of interest and 'zoom-in' for a closer look. Every square inch of the site has been meticulously excevated, with every find carefully logged for position, depth, size etc. This allows the user to analyse the site both in detail and from a wider historical and geological perspective. However, the introduction of the Amiga has allowed the introduction a further element into the database — video stills and sequences. When complete, the user will be able to call up any find and along with detailed written information, be presented with its video recording.

It is hoped that the present Amiga prototype will be completed for the forthcoming Which Computer show. Possible further enhancements to the system include an educational interactive-video system.

Virgin Mastertronic

Virgin Communications has announced that following its acquisition of 45% of the Mastertronic Group in October last year it has now completed negotiations to obtain the balance of the equity of the Group and is forming a new company Virgin Mastertronic which will combine the computer and video game interests of both companies.

Virgin Mastertronic, retains all the management from both companies and with sales of over £30m per annum becomes one of the largest companies in the industry in the world.

Managing Director Nick Alexander said: "This is the fulfilment of well over a year's hard work. After our initial involvement in Mastertronic we found that our operations were highly complementary and this step makes tremendous sense for us both. We are now one of the strongest companies in the industry and we intend to use that benefit to the full."

Frank Herman Managing Director of Mastertronic and Deputy MD of the new company said "We began in this industry as innovators and we have continued to be so. Virgin Mastertronic is the only company to be active in all sectors of the industry from the arcades through to the home, from publishing to manufacturing and distribution, from full price to budget, as well as the games console market. We are delighted at this opportunity to work within Virgin which will give us the extra managerial and financial muscle to put our ambitious plans into effect."

The Company has Arcade machine software and hardware development (Arcadia), full price home computer software publishing (Virgin Games, Leisure Genius and Melbourne House), Budget home computer software publishing (Mastertronic, Ricochet, Bulldog, M.A.D.) and home software distribution in association with Entertainment UK Ltd (Entertainment Distribution).

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Action's Power Manager

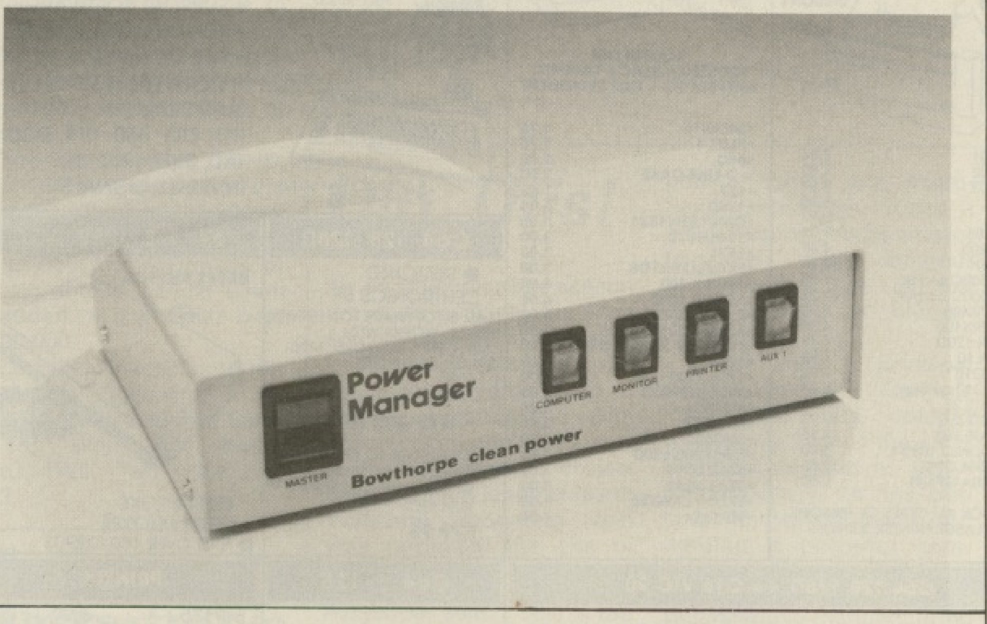
Action's new Power Manager unit combines protection from voltage surges and radio frequency interference (RFI) with the facility to switch up to four peripherals on or off from the unit's control panel.

The Power Manager has four standard 3-pin (13 Amp-type) outlet sockets, allowing it to accommodate normal mains leads. The sockets can be switched on or off either individually or simultaneously from the front panel, and can supply between them a total of up to 3 Amps.

The unit's protection circuits filter out RFI, and dissipate both incoming and outgoing voltage surges ('spikes'), so providing protection against bothmains-borne surges and those generated by any of the peripherals in the system.

Made by Bowthorpe, a UK company with over 40 years' experience in the manufacture of high-performance protection equipment, the Power Manager is available from Action Computer Supplies at £90.00.

Action Computer Supplies,
Abercorn Commercial Centre, Manor Farm Road,
Wembley, Middx, HA0 1WL.



Konix navigate a new course

THE Konix Navigator joystick, which was first unveiled at the recent PC Show, will be available in November.

Konix believe the Navigator, is the best joystick they have ever produced. The Navigator was first conceived over 2 years ago and detailed designs were hiding in the Konix offices at the time of the last PCW Show. But before Konix released it they wanted to be sure it was right.

The interior design of the Navigator is similar to the workings of the Speed King. It is controlled by microswitches, it is say Konic "very robust and would pass any waggle test" highly responsive.

In feel it is likely to appeal to more people than the Speed King. It is ergonomically designed, with a pistol grip handle, so that it can be held in either the right or left hand. Konix have spent a lot of money researching the feel of the joystick so that they could be sure the final shape was the one the average person would feel most comfortable with. Commenting, Konix Director, Sandra Holloway, said: "The Speed King is a tough act to follow and we wanted to be sure that we excelled ourselves. We are delighted with the result and we are sure that everyone, apart from our rivals, will feel the same."

Price £14.99 and Compatability: Commodore 64, Vic 29, Amiga.

Miracles of Science

The University of St Andrews has come up with a computer that can read the entire Greek New Testament in only eight seconds.

The Ibycus Scholary Computer costs £5,000 — loads of pocket money.

It reads just Latin, Greek, Hebrew and Coptic at present, but other languages will also be programmed in.

'Loads of Dram!' says CBM

Commodore Business Machines now claims to hold approximately 40% of the world's independently produced memory chips (D-RAM) at a time when there is a damaging worldwide shortage. The dearth of D-RAM is creating supply problems for many of the computer industry's leading manufacturers. No D-RAM, now computers or at least, like Atari and Amstrad higher prices.

Commodore is keen to point out that no such supply problems are effecting its deliveries. Commodore initiates enough forward buying contracts every year to assure the supply of all components, including the vital memory chips. Where many computer companies are floundering to fulfil their orders, Commodore has a sound and regular supply of machines. Commodore is still building PCs and Amigas at a time when several other manufacturers are struggling to keep their plants turning over. Traditionally, the D-RAM market has swooped from shortage to glut with monotonous regularity. But the present shortage would appear to be more than just a glitch in the manufacturing/supply routes and looks set to last for another 12 months.

As long as the boom in Far Eastern clone manufacturing continues — together with the trend towards larger, more expensive memory chips — it would appear that some manufacturers will be breaking promises rather than sales records. However, Commodore say they won't be one of them.

Steve Franklin — the Managing Director of Commodore Business Machines — commented: "It concerns me that some of the so-called captains of our industry continue to launch new products and make new promises without having the ability to deliver. This is harmful not only for themselves but also for the industry as a whole. Difficulties — such as supply problems — highlight the true calibre of companies. In this case enhancing the strength an ability of large multi-national corporations, such as Commodore, in the long and short term, strategic and operational planning."

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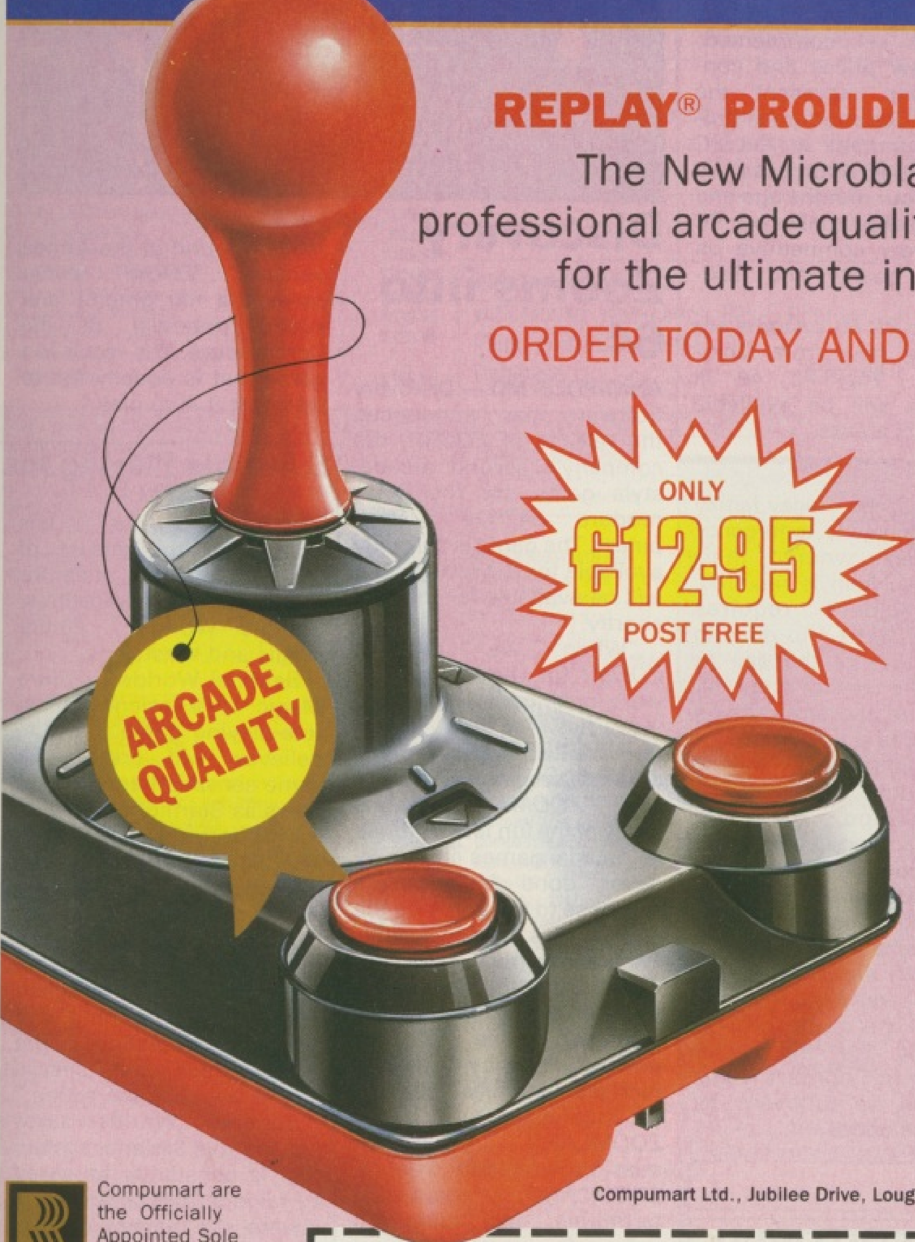

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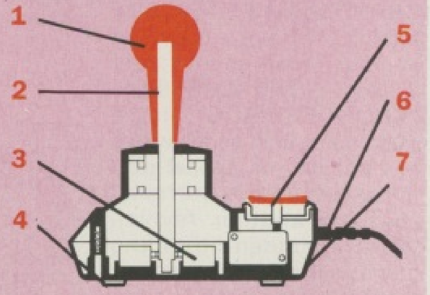

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Commodore set to cause a stir with its new PC prices and configurations

Commodore Business Machines has announced 23 price changes and 13 new configurations for the entire 80286 (PC 40 III) and 80386 (PC 60) Computers.

The new prices say Commodore make her '286 and '386 machines more competitive than ever before. For instance, the PC 60 range now starts at £1799.00 (RRP) and tops-out at £3599.00 (RRP). The machines offer true 32 bit technology using fast 328-not 16-bit RAM. The PC 60 is also one of the most compatible computers around due to its Intel chips and mother-board. The entry level PC 40 comes with a VGA monochrome monitor as standard for £1299.00.

Andrew Cornish — Commodore's National Sales Manager for the Business Division — commented: "The new prices and configurations represent the end of Commodore's product alignment in the PC sector. It is a process we started four months ago and its completion makes our PC range very competitive on pricing, quality and flexibility.

All the PC 60 systems are available now from Commodore. The PC 40 III products will be available within six weeks.

Grandslam's Thunderbirds

GRANDSLAM ENTERTAINMENTS have secured another much sought after licence — THUNDERBIRDS. "THUNDERBIRDS" is a major television series which has retained its appeal over th eyears and is currently enjoying another revival. We're confident that the game will be as popular as the TV series itself," commented GRANDSLAM Managing Director, Stephen Hall.

THUNDERBIRDS the game, joins the famous Tracey family in a four way scrolling role-playing graphic adventure. Whilst on a mission to rescue two trapped miners from the bottom of a lift shaft, their craft is filmed by the Hood, the infamous arch-enemy and evil destructor of noble causes. His cameras have managed to penetrate THUNDERBIRDS' film protection shield and made a video of the vehicles. If their anonymity is to be maintained, the Tracey family will need to retrieve and destroy the video. Situations are never that simple though, and whilst on their search for The Hood, the Tracey family encounter many emergency situations where their immediate help is required. One incident requires THUNDERBIRD 4 to drive to the bottom of the sea to rescue the crew of a nuclear submarine and ensure there is no risk to public health.

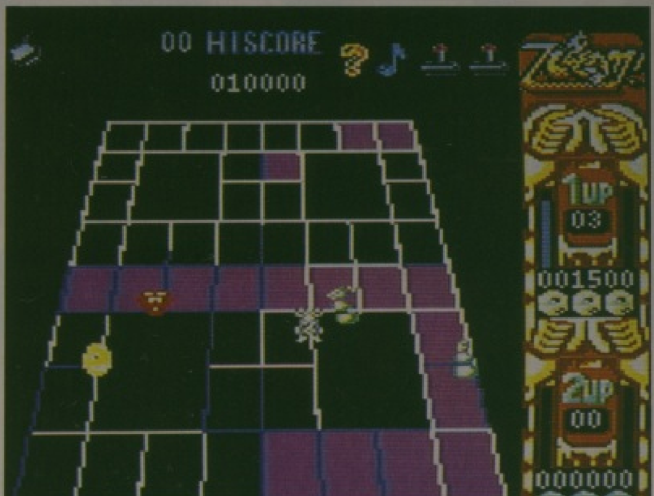
Meanwhile, Lady Penelope and her drive, Parker, are hot on The Hood's scent and close to finding out his secret whereabouts.

GRANDSLAM'S THUNDERBIRDS features all the famous characters from the TV show, including Virgil, Brains, Lady Penelope and Parker. The game will be available for all major formats in February 1989, and will be followed by further missions.

CCI EDITORIAL ASSISTANT

Would you like to work on CCI and other magazines? We have a position for an Editorial Assistant. No, we don't need another games reviewer. We want someone who is computer literate to a reasonable standard — probably who has used several machines and is 18 or over. S/he should live in or close to London, or be prepared to move to North London:

Antony Jacobson
Managing Editor, CCI, 40 Bowling Green Lane, London EC1R 0NE.



Discovery Zooms into 64

ANNAPOLIS MD — Discovery Software has announced the release of *ZOOM!*, the company's second arcade-style game, for the Commodore 64®/128™ computers. The game is currently available for the Amiga, and will be available for the IBM shortly.

"When we released *ZOOM!* for the Amiga, we were looking for a game that was fun for the whole family," Richard Ross, president of Discovery Software, said *"ZOOM!* synthesizes many of the fun factors found in arcade games in a way never done before. The response to the game on the Amiga has been terrific. People love it!"

The easy to learn, non-violent game features a character named ZOOMER, who is chased by a gang of reckless enemies through an outerspace land called ZOOMLAND. ZOOMER's mission is to dart through ZOOMLAND, capturing territories and collecting points. Designed to appeal to video game enthusiasts at all skill levels, *ZOOM!* challenges players' reflexes and strategic thinking abilities. The game has 50-levels of play for one or two players. According to Andy Hook, the programmer who adapted *ZOOM!* for the Commodore 64, the game duplicates the same arcade realism found in the Amiga version. *"ZOOM!* showcases the full graphic and sound potential of the Commodore. The result is a game that is equally fun to watch as it is to play."

E.A. Role Playing for PC

Electronic Arts has announced the release of two role-playing titles for the IBM and PC compatibles, Sentinel Worlds 1: Future Magic and Wasteland.

Sentinel Worlds I: Future Magic is a science-fiction role-playing game that E.A. believes will create the same sensation among IBM users as Starflight did when it was introduced in 1986. They say "Starflight showed that characters in a fantasy game could be as rich as characters in a novel and this is even more true in Sentinel Worlds. The program is graphically stunning with smooth animation. The sound track and special effects enhance the action."

Sentinel Worlds takes players to a 3-planet system that is constantly harassed by raiders from an unknown source. As players explore locations on starships and planets, the screen displays a map of the area being explored. The screen allows players to witness a first-person view of the terrain, one of the 85 animated character pictures, motion and radar scanner data and information on weapons, communications or combat. Price £24.95.

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Citizen WWF Leads School Datachase

Following the success of last year's Citizen sponsored World Wide Fund for Nature project, 'Pictures from Numbers', Citizen Europe is announcing a new project for schools called 'Datachase'. Each of the 36,000 targeted schools in the UK will receive details of the project. The project has three objectives: to encourage young people to identify, investigate and learn about environmental issues which are important to them; to help students develop presentation and creative skills through the use of computers and to demonstrate how problems can often be most successfully solved as a result of collaborative effort.

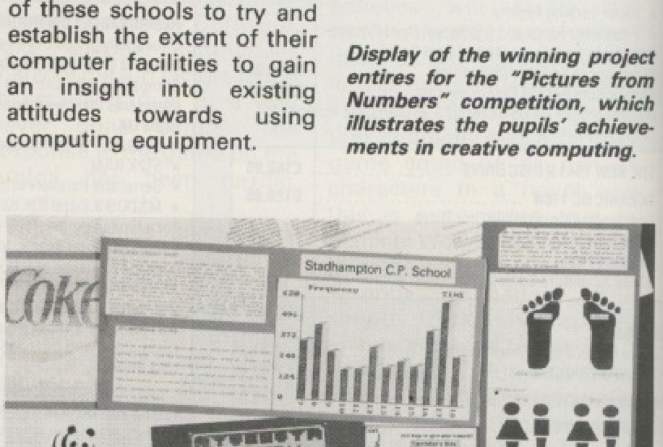
Robin Marriott, European Marketing Manager for Citizen Europe Ltd. said: "When we launched the 'Pictures from Numbers' project last year we received over 1,200 applications. We decided to go back to some of these schools to try and establish the extent of their computer facilities to gain an insight into existing attitudes towards using computing equipment.

"The results astounded us. There is still an overall shortage of computer equipment in schools and a vita gap in time put aside for training of teachers and children alike. Many teachers are not comfortable with computer technology themselves and the difficulty of access to equipment compounds the situation. This inevitably means that computers are not widely exploited in schools for problem solving and creative presentation as they are elsewhere in business and industry.

The 'Datachase' project will run until May 1989 (closing date 26th May 1989) and winners will be announced in July 1989. Citizen Europe Limited will not only be sponsoring this project but also giving prizes which will go some way to increasing the prize winners' access to high quality computer and printing equipment.

For further information about the 'Datachase' project or to receive project packs, teachers or pupils should write to: Education Department, WWF United Kingdom, Panda House, Weyside Park, Catteshall Lane, Godalming, Surrey GU7 1XR.

Display of the winning project entires for the "Pictures from Numbers" competition, which illustrates the pupils' achievements in creative computing.



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SUPER CHIPS

Mike Hutchinson replaces his chips with a super version that commands respect. . . .

I am fascinated by mysteries and avidly read the skeptical literature. Does the Bermuda Triangle exist? No! Are we being visited by extra-terrestrials? No! Can Uri Geller bend metal using psychic powers? No! Why did Commodore leave out some important commands on the 128? I don't know! Well, not all mysteries are easy to explain, and *The Skeptical Inquirer* won't give me the answer to that one. so, how to overcome the problem of not having commands like find, change 'this' to 'that', and program append.

Free Spirit Software have produced an answer by some replacement chips to give you these commands, plus others, plus a screen editor. There are at least two combinations of chips available, depending upon the 128 computer which you have. (Yes, there are differences). I have a later model 128D, with a metal case, and power switch at the rear. The earlier model had a carrying handle and an interior fan.

The 'new' 128D needs only two chips, one less than the old one. They are fairly easy to fit after you realise that the cover should be slid backwards before being lifted off. The chips to be replaced are easily identified by the instructions supplied. The warning to handle the chips with caution as static charges can destroy them is a little worrying. The old chips have to be removed very carefully, which isn't easy to do with the limited space with which to grip them. Be careful not to bend the pins when the chip suddenly becomes free; you might need the old chips again! Be sure to note where each has to be replaced, for there is nothing to tell you if you get them mixed-up.

After I fitted the chips I decided to try the computer before replacing the cover. This was just as well, for they didn't work first time. The disk drive didn't spin and the monitor screen was blank. The old chips were replaced, and everything was OK. I put the Super Chips in again, and this time they worked.

The first difference with the Super Chips is the change to the cold start which credits Free Spirit Software and its programmers. But more important, the screen display defaults to lower-case characters. This means that you will possible have to change all your basic programs with 'Print Chr$(142)' at the beginning so that they run in upper-case. A small trouble perhaps, but a problem arises when you are writing a program for use on another Commodore computer. You have to remember how the screen will appear, especially if you are using graphics. The Commodore Dos Shell program runs in lower-case, which at first is a bit off-putting. But before condemning Super Chips because of this niggly problem, what about its advantages? These are considerable. Any professional or keen amateur programmer will find the additional commands useful.

SHENLYN
KARL

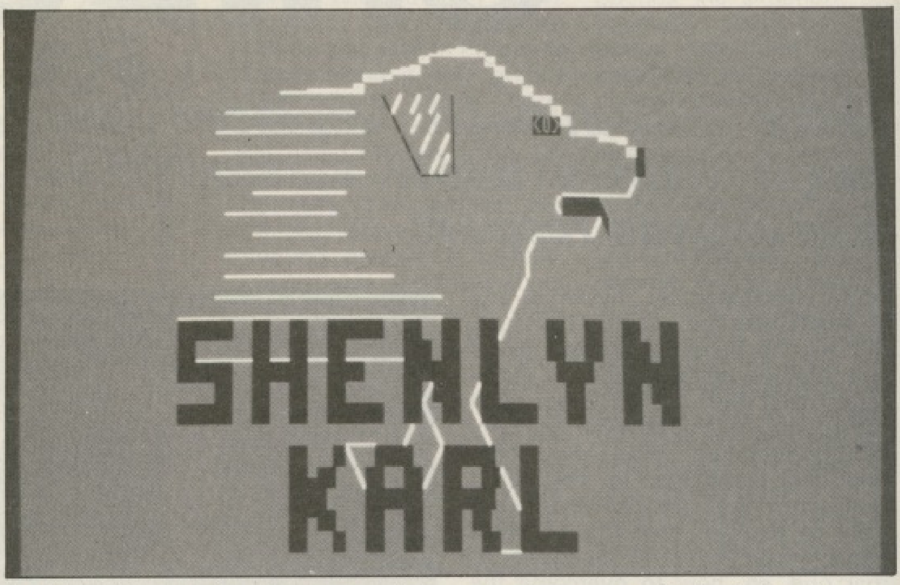
Find works more or less as you would expect. To find all uses of string A$ you enter 'find.A$.'. This gives a screen print of all lines using A$. Instead of using full stops you can use any character not included in the item you want to find; any character except 'space' that is. You can also limit the search to any part of the program by using a hyphen, just as you would when listing or deleting part of a program. e.g. 'find.A$.-1000' limits the search to the first thousand lines. If the item to be found contains shifted characters you will have to use quote marks instead of full stops (or whatever choice you make).

Change works similarly to Find. To change A$ to B$ you enter 'change.A$.to.B$', again using a hyphen to limit the part the program you want to be affected by the change. A bug seems

cont. on next page

continued from page 21

SUPER CHIPS



to have taken-up residence in the chips though. I entered 'change"stock "to"Stock" ' and discovered that the Rems were not changed properly. Instead of 'Stock' they showed 'err$stock'. I found it difficult to remove the error. Overtyping made no difference. Even changing the line number didn't have any affect. Finally I deleted the line and re-entered it.

Combine is the command to add a program from disk to one in memory. There is a warning in the instructions to have the line numbers ordered correctly to avoid strange results, but I haven't yet found this a problem. I added a program with lower line numbers to the one in memory and renumbered the new combined program without difficulty.

Merge can be used to 'shuffle' one program into another. This means that if the programs have the same line numbers the second program to be loaded will replace those already in memory. I would expect to use this very rarely as it is obviously necessary to be sure that line numbers you want are not going to be overwritten. Quite a problem with two long programs.

'Start' gives the starting address for a program in decimal and hex; 'file' also gives the length and ending address.

'*' sends any monitor command to the printer.

How often have you wished you could do a screen print? Well, with Super Chips you can. Just enter 'restore' followed by 'D' and you get a low res screen dump. I use an Epson FX-80 with the line feed switched off. I was surprised that the print-out included line feeds. Fine for me, but if you have your printer line feed switched on your screen dump will probably have double line feeds.

'Unnew' performs the miracle of bringing back to life a newed program whether it has been erased by the 'new' command or by a reset.

A really useful command and one which I know I will use more than many of the others is 'type' which lists to screen a program you have on disk without affecting a program in memory. This can be used when you want to check lines in another program. Such lines can even be 'captured' by pausing the screen list and pressing 'return' having entering new line numbers if required. 'Type' will handle files other than program files should you wish. In practical use you can load the directory, move the cursor to the file to be loaded and press F5 (which, like other function keys has been re-defined) to enter 'type' plus a colon.

Other changes to the function keys are the following: **F1** and **F2** are now DLOAD and BLOAD plus a colon. Just list the directory (using **F3** as usual) and place the cursor on the program to be loaded. Pressing **F1** or **F2** loads the desired program.

F3 loads the directory on the left of the screen as usual. **F4** will load the directory of a second disc drive on the right hand of the screen in 80 column mode. Because of the presence of the second of these commands the first can look messy on screen. If you have a fully used screen when you press **F3**, only the left hand side of the screen clears to list the directory. This is of course in case you have the other directory listed on the right hand side.

F5 reports the last disk error.

F7 is still used to list a program, and **F8** has been changed to allow entry to the monitor.

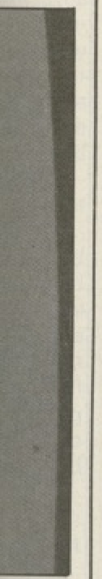
Finally I come to the screen editor. This enables you (on the command 'editor') to draw a design on screen using characters or graphics and make a basic program for inclusion in your own programs. It can be used in a variety of cases, for designing anything from a menu to a logo. I used it to design the logo shown here. The dog was still difficult to do, but SHENLYN KARL was fairly easy. The program to produce this screen print is thirteen blocks long, so you will realise how long it would take to program line by line. I cannot say how long I took to do it using Super Chips as it is not the first version. I am sure that it saved me a lot of time and undoubtedly produced a far better result than I would otherwise have achieved.

Once you overcome the use of lower-case characters, Super Chips give you some invaluable commands. I wouldn't want to be without them. As I am always changing (improving?) programs which I use for business and personal use I think I have got value for money. Whether you too can justify the £29.95 which Super Chips cost, only you can say.

Now, if only someone would come up with a chip which will enable windows to be defined in different colours. . . .

M.H.

Contact: Financial Systems Software Ltd., 18 High Street, Pershore, Worcester WR10 1BG. Tel: 0386 553153. Price: £29.95



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Joining Compunet

Compunet was the very first on-line service I accessed. Having obtained my shiny new Compunet modem I wasn't exactly sure what I would find on logging in. However, I needn't have worried, the on-line community is a friendly one and new users can always find a friendly soul to help them out.

Commodore C64 owners will need to get hold of a Compunet modem, which plugs into the cartridge slot and a nearby telephone socket. The modem is available directly from Compunet at £40 and includes one months subscription to the Net. The latest models use better tolerance components than previous versions and are more resilient to the noise on bad lines.

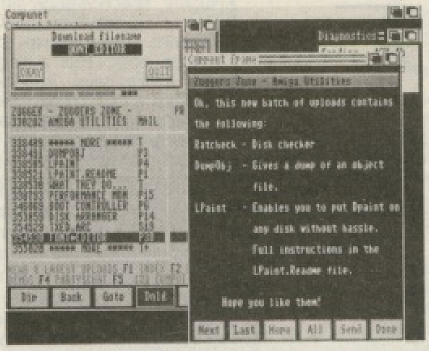
Amiga owners need one of the common V23 modems (Pace Linnet, Miracle WS4000 or Astracom 1000) and the Amiga Compunet Terminal software. The software is available from most public domain software sources at a cost of few pounds. The software is shareware and should be distributed at the cost of reproduction and postage. Only when they have tried out and joined Compunet are Amiga users asked to pay £20 for use of the software.

Alternatively Compunet supply a version of the Pace Linnet complete with Compunet software, suitable cable and one month's access to Compunet for £135 plus VAT.

In the case of the C64 modem the terminal software is stored in ROM in the modem itself. Both versions consist of a sophisticated online terminal that uses a special error-correcting protocol to ensure corruption-free screens of data are transmitted to and from Compunet. They also contain a screen editor to allow the construction and viewing of colour character graphics screens.

With all the hardware and software in place it's time for the first call to Compunet. Compunet can be accessed through over seventy telephone numbers around the UK and Eire, the UK can use the International Packet Switch Networks to gain relatively cheap access.

During off-peak periods Compunet runs a demonstration area that allows potential users the change to try the system out before parting with any hard-earned cash. The area is available 6pm to 8am during the week and all day at the weekend.



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Zoggers Zone - Amiga Utilities

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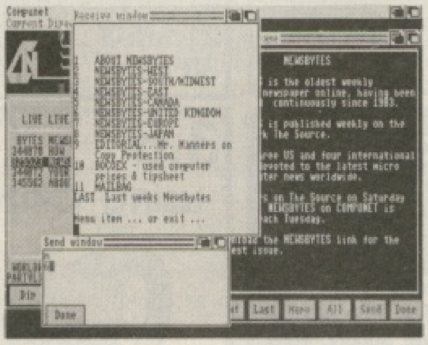
     Hope you like them!
```

Once the Compunet terminal software is run it will prompt for a telephone number; type it in CAREFULLY! On my first call I mistyped the number and inflicted the screech from my modem on some innocent soul. After a couple of rings ISTEL's computer should answer and display a couple of error messages (don't be alarmed!) before putting you in contact witn the Compunet computer.



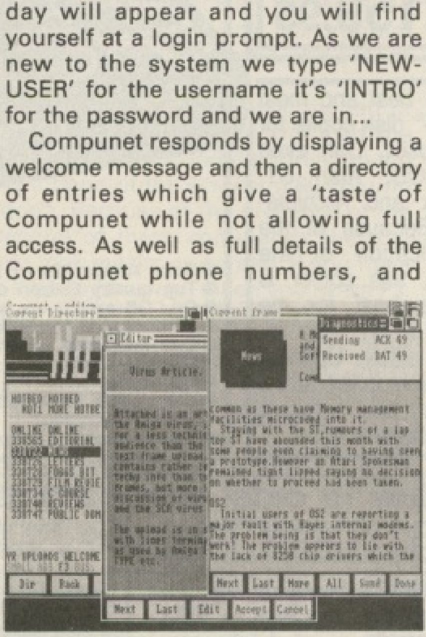
```
   ABOUT NEWSBYTES
   NEWSBYTES-WEST
   NEWSBYTES-SOUTH/MIDWEST
   NEWSBYTES-EAST
   NEWSBYTES-CANADA
   NEWSBYTES-UNITED KINGDOM
   NEWSBYTES-EUROPE
   NEWSBYTES-JAPAN
   EDITORIAL...Mr. Manners on
   Copy Protection
10 BOCEEX - used computer
   prices & tipsheet
11 MAILBAG
LAST  Last weeks Newsbytes

Menu item ... or exit ...
```

```
NEWSBYTES
```

At last Compunet's message of the day will appear and you will find yourself at a login prompt. As we are new to the system we type 'NEW-USER' for the username it's 'INTRO' for the password and we are in...

Compunet responds by displaying a welcome message and then a directory of entries which give a 'taste' of Compunet while not allowing full access. As well as full details of the Compunet phone numbers, and nearly two hundred pages of indices to the full range of Compunet areas there is some demo software; IFF pictures, details of how to join, prices and special offers on modems.



```
Sending   ACK 49
Received  DAT 49
```

```
common as these have Memory management
facilities microcoded into it.
  Staying with the ST,rumours of a lap
top ST have abounded this month with
some people even claiming to having seen
a prototype.However an Atari Spokesman
remained tight lipped saying no decision
on whether to proceed had been taken.

OS2
  Initial users of OS2 are reporting a
major fault with Hayes internal modems.
The problem being is that they don't
work! The problem appears to lie with
the lack of $256 chip drivers which the
```

Amongst the C64 software that can be downloaded at no cost is a stand-alone demo version of Compunet's Multi-User Game, Federation II. This is an online adventure/trading game in which the other characters met can be either computer generated (called mobiles) or other players. But be warned, it's addictive!

After fifteen minutes on-line the Compunet host computer asks users of the NEW-USER account to log-off and disables, all other commands. By this time its possible to download enough data to provide an hour or two's reading. It's particularly worthwhile downloading the indices as they give a good idea of the breadth of pages and services that can be found on the online database.

After logging off for the first time new users using the C64 should type CNSAVE. This saves to disk some extra software which was automatically downloaded from Compunet on first connecting. It contains updates to the online code in the modem's ROM which should be CNLOADed before subsequent use of the modem, this will shorten the time taken to log on.

If the demonstration area has convinced, full access to Compunet can be obtaining by taking out a subscription for an account. This can be done by ringing Compunet's voice line and paying by Access or Visa or by writing to the address given below.

Once registered the new user gains access to most of the database, apart from a few closed user group areas (CUGs) such as parts of the ICPUG area. C64 users should GOTO CNETU where a number of useful utilities that modify the Compunet online code can be downloaded mostly at no cost. These greatly enhance the ease of use and facilities provided by the software.

From then on Compunet is what you care to make of it!

Contact: Compunet, Unit 26, Sheraton Business Centre, Wadsworth Road, Perivale, Middlesex UB6 7JB. Telephone (Voice): 01-997-2591. J.L.

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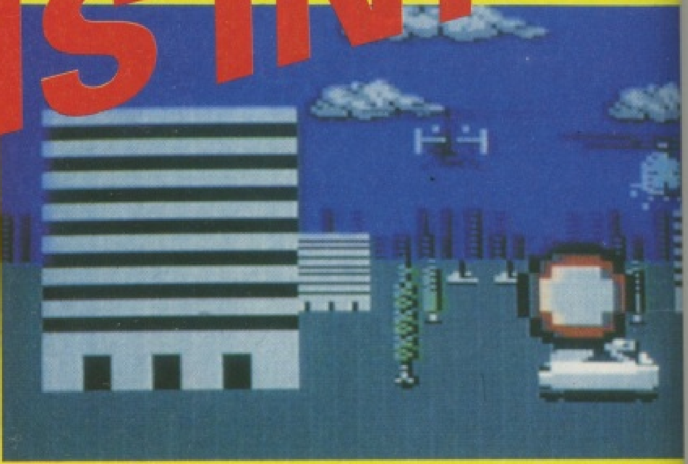
THUNDER BLADE STORMS IN!



DANIELLE, the gorgeous and intelligent (sorry, intelligent and gorgeous, we mustn't be sexist) P.R. Manager of U.S. Gold has told us that Thunderblade is the greatest thing since . . . the French Revolution! (The French Revolution? What's that got to do with it? We hear you cry. Well, in fact, nothing. The 1789 event was suggested by Tony Horgan, whose eyes sparkle at the very mention of Danielle in a most romantically French way! So that's why he thought of it, probably.) The delightful Danielle, at this moment sunning herself in Lanzarote with the equally sensational Anne Brown, has so raved about U.S. Gold's end-of-year biggie that we have agreed to give you a Thunderblade Comp. with some fantastic prizes.

First you can win a terrific radio-controlled Helicopter, and receive it from the hands of Danielle herself. And she will accompany the winner (plus a friend) to an all-expenses-paid day visit to Tiertex, the programmers of Amiga version of Thunderblade, to see which secret projects they are working on now. *And (yes, there is more!) you will get a Thunderblade Tee-Shirt and a Thunderblade poster, badge and, of course, a Thunderblade game (64 or Amiga, you tell us which).*

25 Runners up will get each a Tee-Shirt and a Thunderblade game.

And the next 25, Thunderblade posters and badges.

So, for you potential Thunderbladers, all you have to do is answer the positively fantastically easy questions:

1) Who programmed the 64 version of Thunderblade?
2) How many levels are there in the game?
3) What do the tower blocks resemble?
4) Name two types of enemy craft you encounter during the mission?
5) In which level might you stop off for a spot of fishing?
6) What do you lose at the end of the first stage?

Answers on a postcard please to:
Danielle's Thunderblade Comp., c/o
C.C.I. 40 Bowling Green Lane, London
EC1R 0NE. To reach us by the *15th, February* 1989.

Vive La belle Danielle!

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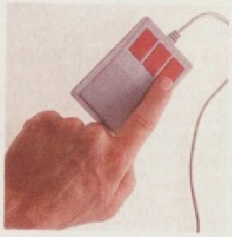

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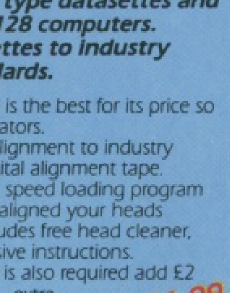

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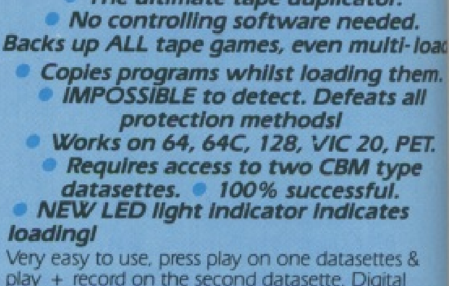

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AVERAGER

Stocks and shares can be a dangerous place to put your money. Peter McDonald shows you how to make the best out of a falling market.

There are some programs, designed, I suppose, to help teachers and lecturers, which enable one to arrive at average exam marks, either for a pupil (averaged over all his subjects) or for a class (averaged over all the pupils). Despite the title, the present offering has nothing to do with exam marks.

Its aim is simple. It is to help the investor in a stock market which has fallen. Let us say that I have bought shares at X pence each. Then the price drops to Y pence per share. I judge that anyone who buys at Y pence is sure to make a profit eventually for (I reason) the price will one day increase. If I buy some more of those shares at Y pence, I shall hold my original take plus the new ones; they will each be worth Y pence, though some will have cost me X pence. How much will the shares have to rise before I can recoup all my outlay? How much before I am in profit? (Obviously the answer to the second question is: 'As soon as the price exceeds what you need to recoup your outlay.' So if we know the answer to the first question, we shall automatically know the answer to the second.)

Let us take an easy, practical example, using figures which will not over-stretch my mathematical skills. Say I hold 1,000 shares in ABC Ltd for which I paid £1 each. O.K.; the total cost is therefore £1,000 at that point. Say they fall in value to 50p each. If I buy 1,000 at the new price, they will cost me £500. So the 2,000 shares I now hold in ABC Ltd will have cost me £1,500 (£1,500 + £500). But they are only worth 50p each, i.e. £1,000 in total. To get back what I paid for them (i.e. £1,500 in total) I should have to wait until the value of the 2,000 shares rose by £500. A rise of £500 in the value of 2,000 shares equals a rise in value of 25p per share. By adding 25p (the required rise) to 50p (the current value per share) we arrive at a figure of 75p. If I sell at that price, I shall receive 2,000 x 75p = £1,500 (which is what I paid for them). In short, I shall have reached the point where the gains on the shares I bought cheaply will have offset the loss (itself reduced by the rise in value of the shares) on the ones I bought at £1 each.

To do that, however, the share price has to rise by 25p on 50p, i.e. by 50%. Is it likely to rise by as much as that? This is where one's skill as an investor comes into play. But at least this program enables you to see what rise is necessary before you can recoup losses by buying cheap.

What if you are not tempted by the Stock Exchange? Well, the program could be adapted to help a shopkeeper. He buys in some items; they sell reasonably, but not sensationally. He then has a chance to buy some more at a reduced price. If he does this, how far could he reduce his present selling price to attract more custom, whilst making a good profit?

Now, let us look at the listing. Lines 20-60 (inclusive) print on the screen a brief explanation of the purpose of the program. There is provision (Lines 320 and 330) to do another calculation once you have finished the first. For the second (and any subsequent) calculation the descriptive matter at the beginning of the program is unnecessary. So instead of starting the program off again at Line 10, Line 330 clears the screen and then gives the command 'RUN 90'. This does all that GOTO 90 would have done, i.e. skips the descriptive matter, and starts at the operative part of the program. But by using RUN instead of GOTO, we wipe out the existing variables, so that you start with a clean sheet once more. (To test this, replace RUN with GOTO on Line 330; RUN the program once, and then, on the repeat, simply press RETURN, without entering any amount, when asked the average cost of the existing holding. This should give a figure of '0', by default. In fact it will give the figure you used the first time you did the calculation.)

Some people will know the average price they paid for the shares. For exaple, if they bought them in one 'take', they will probably remember the price per share, having memorised it so that they can see if the value is up or down in the daily Stock Market lists. They present no problem: they answer 'Y' to the query in Line 100. Because they have already entered the total number held, the computer 'knows' the total paid for the shares. If the 'punter' does not know what price per share he paid, he must enter the total sum he paid. Either way, the computer has the information about the number of shares and the price paid for them.

You are then asked to say how many new shares you intend to buy, and at what price. That price, of course, is also the current value of the shares you already hold.

So once you have entered it, the computer is able to calculate what the total value of the holding (i.e. old and new shares combined) will be. It is also able to calculate the total cost.

From this it is able to work out how far the money paid for all the shares will exceed the current value. Knowing the difference between those two figures enables it to calculate how much rise per share is necessary to 'even things out' (difference divided by total number of shares). By adding that differnce to the current value of the individual share, the program can tell you the actual price per share you need to realise in order to break even. And the program also expresses this as a percentage since most of us find it easier to think in these terms when trying to estimate possible rises and falls. ('I only need a rise of 10% and I shall be OK').

The INT function has been used fairly freely to keep under control the number of figures after the decmal point.

There are the usual 'gimmicks' at the end . . . the invitation to do another calculation if you wish, and the provision for doing a save and replace by typing 'GOTO 9999' if you want to amend the program and replace the old version with the new.

I have made liberal use of SLEEP. Nothing is more surely a question of

continued on page 30

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continued from page 29

taste. There are times, I suppose, when the programmer wants the user (i.e. the one towards whom he is trying to be friendly) to consider a point. SLEEP can help to provide a break in the action for that purpose. But even where there is no need for this sort of break, a program (especially where rapid calculations are being done) is, by some odd paradox, easier on eye and mind if it is allowed to appear on screen interspersed with a series of gentle pauses, instead of blasting information at you in a steady stream like a high-pressure hose. But the impatient can remove the SLEEPs is they wish.

One cannot normally include it in a program, because programs in magazines have to be self-contained. But it is perhaps worth mentioning that if you are using a set of programs, and want to control them by a menu, Line 340 (which comes into plan if anything other than 'Y' is typed in answer to the question on Line 330) could be altered to read:

340 SCNCLR: RUN "MENU"

Once again I have tried to give less experienced 128 owners a program which does not entail too much copying (under 40 lines), uses one or two devices from which the beginner may learn, and serves a purpose which is slightly out of the ordinary but can certainly be adapted for many other uses.

P.M.

```
READY.

10 SCNCLR:REM:AVERAGING...(C)PETER MCDONALD
20 PRINT"THE OBJECT OF THIS PROGRAM IS TO DETERMINE HOW MUCH THE MARKET"
30 PRINT"WOULD HAVE TO RISE IN ORDER THAT YOU COULD SELL WITHOUT LOSS A HOLDING"
40 PRINT"COMPRISING (1) AN EXISTING HOLDING OF SHARES PLUS"
50 PRINT"(2) ADDITIONAL SHARES YOU INTEND TO BUY (AT TODAY'S PRICES)"
60 PRINT"IN THE SAME COMPANY............"
70 PRINT:PRINT:PRINT"READY NOW (Y/N)?"
80 GETKEY X$: IF X$="Y" THEN SCNCLR
90 INPUT"TYPE NUMBER OF SHARES NOW HELD":OH:PRINT
100 PRINT"DO YOU KNOW THE AVERAGE COST PER SHARE OF THE EXISTING HOLDINGS (Y/N)?"
110 GETKEY A$:IF A$="N" GOTO 350
120 PRINT:INPUT"AVERAGE COST (IN PENCE) OF EXISTING HOLDINGS";OP
130 OT=INT(((OH*OP)+0.005)*100)/10000
140 PRINT:PRINT"TOTAL COST OF ORIGINAL HOLDING =£";OT:SLEEP2
150 PRINT:INPUT"NUMBER OF ADDITIONAL SHARES TO BE BOUGHT";PA:PRINT
160 INPUT"PRESENT PRICE PER SHARE IN PENCE";PP:PRINT
170 NH=INT(((PA*PP)+0.005)/100)
180 T=(OH+PA)
190 C=OT+NH
200 A=INT(((C/T)+.005)*100)/100 :SLEEP 2:SCNCLR
210 PRINT"COST OF";PA;"ADDITIONAL SHARES AT";PP;"P EACH = £";NH: SLEEP2
220 PRINT"TOTAL COST OF";T;"SHARES =£";C:PRINT:SLEEP2
230 TV=INT(((T*PP)+.005)*100)/10000: D=(C-TV)
240 PRINT"TOTAL VALUE OF";T;"SHARES AT";PP;"P PER SHARE =£";TV:SLEEP2
250 PRINT"DIFFERENCE BETWEEN THIS AND TOTAL COST = £";D:PRINT:SLEEP 2
260 GS=INT((D/T)*10000)/100:SP=(GS+PP)
270 PRINT"RISE PER SHARE REQUIRED=";GS;"P":SLEEP2
280 PRINT"TO RECOUP COST, SELL AT ANYTHING OVER";SP;"P PER SHARE"
290 P=INT(((GS/PP))*10000)/100:SLEEP 2
300 PRINT"I.E. ON A RISE OF APPROXIMATELY";P;"% AS AGAINST TODAY'S PRICES."
310 PRINT:PRINT:PRINT:
320 SLEEP 4:PRINT"DO YOU WISH TO DO ANOTHER CALCULATION (Y/N)"
330 GETKEY B$: IF B$="Y" THEN SCNCLR:RUN 90
340 END
350 PRINT:PRINT"THEN ENTER THEIR TOTAL COST:":PRINT
360 INPUT"COST= £";OT:GOTO 150
9999 DSAVE"@AVERAGER"
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A Yak lover in Wales advises Jez to create an 'Ungame', tries for a piece of hardware that will change the feel of gaming and finally finds a good word-sound- for the Amiga. Yes, Minter's the name.

GREETINGS EARTH-CREATURES. I greet you again from deepest Wales, where I am currently situated with a nearly-full hard disk drive, a small receptacle containing hot water, a diffusion of plant leaves, and cow secretions (a drink popular on my home planet), and a bedraggled and somewhat pissed-off Siamese cat (recovering from his first encounter with the concept and experience of 'a bath').

The sprite and rasta routines alluded to in the last missive have congealed into an almost-finished zap game, which I am currently working through the nights on so that it'll be finished for people to have a blast on at the Atari show. Although I've worked on the ST on and off for a couple of years, that was all lightsynth work and this is the first 16-bit game I've actually written. It's really great to be able to use fast, colourful software sprites instead of hardware sprites like on the '64, where you were constantly worrying about having more than eight in one horizontal raster zone and had to design games around the limitations in the harware. On 16-bit, if I want to use 256 sprites during the Warp sequence, I just code them in and there they are. Sure, you cop a reduction in frame refresh rate the heavier you load the sprite routines, but you can still get plenty sprites in and keep the speed reasonable, and they never, ever flicker. And with my zarjaz rasta routines, I can change the colour on each individual rasta line if I want to, and thereby get more colour into an ST game then you see on most Amiga ones. I think I could really get to enjoy programming games on 16-bit. Even the benighted ST sound chip can be coaxed into producing some reasonable zap-game sonix if driven by an enlighted sound-FX-interpreter, although I'd rather work with the Amiga's sound chips . . .

I just got the game to that point where all the gameplay is in and you can actually play a single, complete game, with extra ships, warps and bonuses where they should be, and a score at the end. Most rewarding when you see all the parts come together at last into a coherent game. The game must be OK, because I've taken to turning off all the lights, putting on some Iron Maiden and getting down to some serious zapping these nights. (Iron Maiden is excellent shoot 'em' up music, and my game is a real thrash-metal turbo-speed blaster — it's actually a conversion of my first Vic-20 title!).

The game itself is an unholy union of Defender, Stargate and Yak, and yes, of course there are llamas . . .

I've been so into the coding just recently I haven't even had much time for my PC-Engine, despite getting some zarjaz new titles for it (although I have been giving Fantasy Zone the odd thrashing for old times sake). This week I'm hoping to get my hands on a new game system just come out in Japan, about which I know not a lot at the moment except that it's about £100, it's 16-bit, and it's supposed to blow the PC-Engine away. This I just have to see. The first games for the system will be Space Harrier II and Super Thunder Blade, and I'm drooling in eager anticipation already.

My Amiga at the moment is mostly being used for playing Starglider II, which is just a totally wicked, awesome, amazing and zarjaz game. Cruising around the solar system descending on the various planets to wreak hideous revenge on the scumbag Egrons is just my cup of hot water, diffusions and secretions. The graphics are smooth and fast and the sonics just ace, especially the sampled Star Trek IV whalesong used for the Egron Space Whales. I enjoyed the wholly unnecessary but nonetheless groovy Painting With Rolf option too, which reminded me of 'Doodle — The UnGame' on the old 'I, Robot' arcade game :now there's a fine arcade game, surely some clever 3D-orientated software house could bang out a 16-bit version of that, would go down well if nicely implemented methinx . . . how about it Jez?).

I look forward with interest to seeing the new Super ST which Atari plan to release next year, as I'll probably have to do versions of any games and, of course, Trip-A-Tron, for the new system when it comes out. I especially hope that the old AY sound-chip will be out on it's silicon ear, maybe even replaced by the mythical AMIE sound chip, rumoured to be of excellent quality but never actually seen by anyone, ever. I must admit that what I envy the Amiga most is not the scrolling or the extra colours, for both can be implemented on the ST with a little programming ingenuity, the but sound chip and associated DMA sample playback stuff. Sure, you can play samples on the ST, but they eat proc time and generally sound well tinny, whereas when I demonstrate Amiga games to people they often assume I've got a CD on when the game music starts up.

I shall finish now as I have an empty receptacle, a dry Siamese cat, and a cylindrical starfield to implement. Hopefully next time I shall get to report on Space Harrier II and the new Japanese hardware. If it's as good as I've heard, the face of videogaming in the UK will be changed forever when it eventually gets over here, along with the PC-Engine. I won't say 'see you at the Atari show' because doubtless none of you would be seen dead there. Cheerio for now, take it easy and don't miss Neighbours . . .

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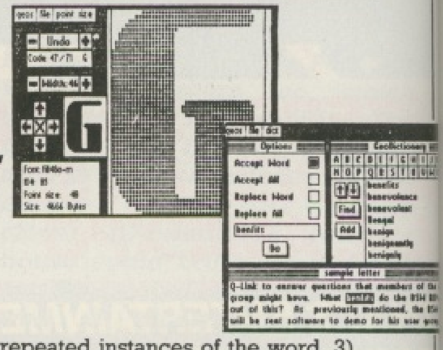

Bob Collyer examines a Geos utility that casts a schpell offer hees orthogravic problems

THE Geos family of products, The Graphic Environment Operating System, series of applications continues this month with a look at the spell checker system called GeoSpell.

A complete spell checker for documents produced using any version of GeoWrite that will find all your spelling mistakes quickly and easily. How I wish this utility had been available when I was at school! Do you remember that there were a few horrible words that you were always spelling incorrectly the teacher would make you write them out 100 times each time you misspelled one. Well, nowadays, the situation has changed somewhat. For home computer owners, producing letters and other documents that are word perfect is now possible with the aid of a spell checker. Yew kno hte sor tof speling miskes tha tcreep intoo eventh shortes scentance. This kind of error could be spotted straight away with GeoSpell. Did you ever stop to think what has become of us since the computer revolution? What has happened since those days we were taught english spelling by writing words out one hundred times parrot fashion? If the computer has helped us to improve our understanding of the universe then why is it that we can still make simple mistakes and need something like GeoSpell to correct the errors? How far have we come? Schoolchildren now use calculators in maths lessons, the result is many children who are unable to do simple mental arhtimetic, (But, of course, can perform far more complex calculations in a much shorter time.) Will they soon be using word processors with spell checkers? I think perhaps they will. This might result in many who cannot spell without the need of a handy spell checker. I hope not all the parrots have died by then.

By the time you read this review some errors may have crept in at our typesetters but I can assure you that each and every word (including the deliberate mistakes) have been checked and, if necessary, corrected using GeoSpell.

It is possible that some typesetters have a computerised system to spot words that are misspelled, most seem not to use them however. The reason for this, I believe, is because it is still possible to make many mistakes without spelling words incorrectly. ***Dew yew sea watt eye mean?*** Then there are some important words that could missed out even. A program that can make sense of entire sentences is what they really need. One day someone somewhere will make such a utility that doesn't use 64 billion K!

This Geos application has a dictionary of 28,000 words, large enough to cover nearly all the documents you will need to process. There will be many words, however, that will be used that GeoSpell cannot understand. For instance you may write about "CCI". We know what is meant by "CCI" (Do we? Ed) but GeoSpell doesn't.

> ***"There is a personal dictionary file on the disk into which you are able to build up your own frequently used words that GeoSpell will come to learn."***

There is a personal dictionary file on the disk into which you are able to build up your own frequently used words that GeoSpell will come to learn. This will expand with use and grow because it can be added to each time you encounter a new word that is not understood by GeoSpell, subsequent scans by the spell checker will encounter these words and "understand" them.

Once your document has been spell checked, sections containing misspelled words are displayed. When a word that is not in the 28,000 word dictionary is encountered it will be highlighted in your document. You then have several options available to you. 1) Accept word and leave alone. 2) Accept All this skips over repeated instances of the word. 3) Replace word. 4) Replace All. After your choice GeoSpell then goes onto find the next word not in the dictionary. If you are not sure how to spell the highlighted word then it is possible to "find" the word by searching through the dictionary automatically. Once the correct word is found you may choose it to replace the existing occurence of that word.

When you have finished checking your document then it is a simple matter of saving and printing your word perfect document.

Also on your disk you will find GeoFont. Create your own typefaces or change existing ones with this utility. There is a Geos application available called Fontpack where you can buy about twenty new typefaces ready made. GeoFont lets you create your own free of charge, all you need is a lot of patience, the creativity of your own mind and then you may produce a pixel by pixel beautiful new typeface.

This is not as easy as I have just described as typography is an art form in itself. Each individual letter and numeral must carry that unique style throughout the entire alphabet, not an easy task by any standard but if you are capable then the new font may be saved to disk and used in any of your documents. Quite a financial saving for the DIY fan so why don't you do it yourself?

On the reverse of the disk comes all the latest printer drivers and input device files. The latest disk copy version to backup your Geos workdisks is also on the reverse of the disk. A handy readme file contains all the information on these new driver files. In all this disk contains so much that is good for you to enhance your existing GEOS. In order to ensure perfect spelling with a perfect typeface when you next use GeoWrite, go out and get this very versatile package. ***B.C.***

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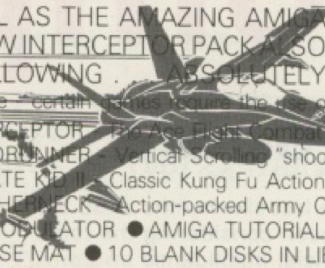

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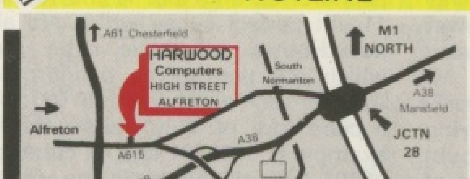

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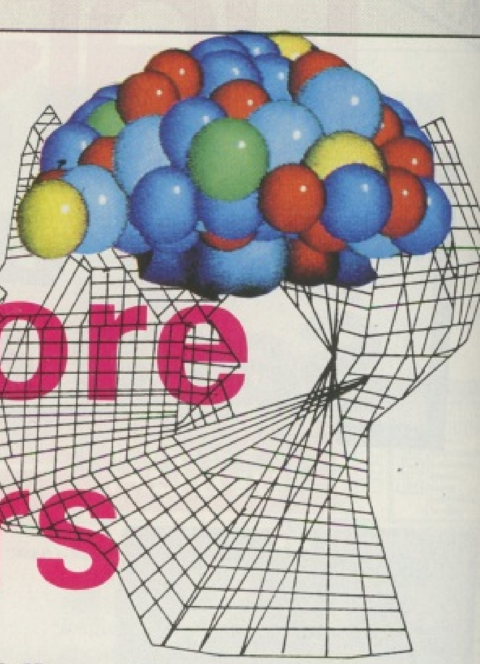

Peter Gerrard

Part VI — Summing Up

FOR the last six months or so we have been considering the topic of artificial intelligence on Commodore computers, and illustrating our arguments and discussions with program listings. The majority of these listings have been concerned with the essence of A.I. — trying to teach the computer to think in a human kind of fashion. There is always a reasonable argument to be had along the lines of humans thinking artificially anyway, but in this, the final article in the series, we shall ignore that train of thought.

What I would like to do instead, before we round off our psychatrist program and play around with a few numbers and cover what else we might get to along the way, is thank those who have taken the trouble to write in. In particular, as the wonderful Eric Morecombe and Ernie Wise were wont to say, thanks to my fan Mr Mullowney of Cheshire (page 96 of the November 1988 issue of CCI, at the bottom of the middle column). Although there may be a gap of 37 years in our age at the time that you'll be reading this, the man says of me that "he's good, and he he knows that he's talking about," Splendid chap! I note that Cheshire is not too far away from The Shepherd's Arms in Lower Ince, Wigan, my local hostelry, so if you've ever out that way Mr Mullowney (or may I call you Jack?) ask for the bearded pool-plying computer man and he will no doubt eagerly extract the price of a pint of Tetley Bitter from your wallet.

But enough of this, and back to work.

In that self-name November issue we considered the topic of what were referred to as Hailstone numbers, and a set of rules governing whole positive numbers. There are many other areas that could be explored here, but at the end of this series on A.I. we shall consider just one; Palindromes. These are not, as fans of Jess Minter's excellent games might be forgiven for thinkings, a form of camel. By sticking to our objective of applying rules to a program, as we did with Hailstones, we can begin to study a very interesting branch of mathematics.

"Evil rats on no star live" as an example of a palindromic sentence. That is, one that reads the same forwards as it does backwards. Another more famous example concerns the emperor Napolean: "Able was I 'ere I saw Elba", a sentence that even manages to put the apostrophe in the correct place when it is reversed. But palindromes are not the exclusive right of the written word, numbers can equally as well be palindromic, and for the next few paragraphs we shall be looking at just that type of number.

Take, for example, the number 1331. This obviously reads the same whichever end we start from. Interestingly enough, the cube root of this palindromic number is itself a palindrome, and that is the number 11. All perfect cubes which are also palindromes will have cube roots which are themselves palindromes. Another such number is 1367631, with a cube root of 111, while a further example is 1030301 and its cube root of 101. I say all, but this is one of those interesting mathematical 'rules' to which there is one, and so far only one, exception, 10662526601, a palindrome, is a perfect cube, and its cube root is 2201, not a palindrome. Just one exception to the rule, but why should this be so? Are there other exceptions waiting to be found and, very important, will you be the person to find them?

We talked about finding exceptions when we discussed the numerical technique of hailstoning, a technique that applies certain rules to numbers in order for an end result to appear. It is not something that can be rigorously proved, it just so happens that for every number that has so far been examined, the rules hold and the end result always appears. Note that with both hailstoning and the topic that we'll be coming to in a moment we are always concerned with positive whole numbers.

> ***"We can take the analogy one stage further: there is no strict mathematical proof stating that we can apply these rules to any positive whole number and end up with a palindrome, but we always seem to. I say seem, because there are numbers where there is room for doubt."***

Take any positive whole number: 194 for example. Reverse the order of the digits and you get the number 491. Add those two numbers together and you have a total of 685. Reverse the digits in this new number and you get

586. Add the two (685 and 586) together once more and you arrive at a total of 1271. Apply the same rule for a third time to give us a number of 1721, add that to 1271, and we end up with the number 2992. This is, of course, a palindrome.

You might at first think that few numbers adhere to this rule, but I assure you that the number 194 was chosen totally at random. Well, almost! Read on and see why. Let's see what happens to the number 409. Reverse the digits to give us 904, add the two numbers up, and we have 1313. Reverse the digits again for 3131, add the numbers up once more, and we arrive at 4444. Once again, a palindromic number is the end result.

Even very large numbers do, eventually, return as a palindromic number. Take, for example, a starting point 55563. After 21 turns we reach the enormous number of 111675303576111. A palindrome at last. We could start with the number 998, and find that in 17 turns we have reached yet another palindrome: 133697796331. Just as with the hailstoning technique there is no quick rule that we can apply to a starting number that will tell us exactly how it is going to behave. We can take the analogy one stage further; there is no strict mathematical proof stating that we can apply these rules to any positive whole number and end up with a palindrome, but we always seem to. I say seem, because there are numbers where there is room for doubt.

In order to explore such numbers we need to consult the computer, and the first of this month's listings does precisely that. However, there is a major flaw in dealing with enormous numbers on home computers. If we use only the Basic commands for manipulating such numbers we soon find that we have lost all accuracy and the results become meaningless.

But if the need is sufficient we can soon find a way around these problems, and in the listing we are working to an accuracy of one hundred digits. There is no reason why this accuracy cannot be increased to a thousand or more digits, but the computing time involved becomes prohibitive if we do so. The heart of this accuracy centres around lines 280 and 340 of the listing, and concerns itself with arrays a$, b$ and c$. The first is used to hold our original number, the second holds it in is re-arranged format, and the third holds the result of adding the first two numbers together. Thus if our starting number were 123, then the 98th element of a$ would hold the number 1, the 99th the number 2, and the

Persueing Palindromes

```
10 DIM a$(100),b$(100),c$(100),d$(100)
20 PRINT "[clr]"
30 FOR k=995 TO 1000:a=k:swop=0
40 FOR z=1 TO 100:a$(z)="":b$(z)="":c$(z
)="":NEXT:ok=FRE(0)
50 a$=MID$(STR$(a),2):l=LEN(a$)
60 FOR i=1 TO l:a$(101-i)=MID$(a$,l+1-i,
1):NEXT
70 FOR i=1 TO 100:IF a$(i)="" THEN NEXT
i
80 sar=i
90 FOR i=sar TO 100:b$(i)=a$(100-(i-sar)
):NEXT:GOSUB 280
100 FOR i=1 TO 100:IF c$(i)="" THEN NEXT
110 sar=i:IF c$(100)="0" THEN sar=sar-1
120 tp=101-sar:IF tp/2=INT(tp/2) THEN ts
=tp/2:GOTO 140
130 ts=INT(tp/2)
140 count=0:FOR i=1 TO ts
150 IF c$(sar+i-1)=c$(100+1-i) THEN coun
t=count+1
160 NEXT
170 IF count=ts THEN 190
180 FOR i=1 TO 100:a$(i)=c$(i):NEXT:GOTO
 70
190 PRINT
200 IF swop>hn THEN hn=swop:sn=a:FOR m=j
 TO 100:d$(m)=c$(m):NEXT:p=j
210 PRINT "Current starting no.  ="a
220 PRINT "Number of turns        =";swop
230 PRINT "Highest no. of turns =";hn
240 PRINT "Starting number of     =";sn
250 PRINT "Max'm no. reached      = ";:FOR
 m=p TO 100:PRINT d$(m);:NEXT:PRINT
260 NEXT k
270 END
280 FOR z=1 TO 100:c$(z)="":NEXT z:swop=
swop+1:FOR j=100 TO 1 STEP -1
290 a1=VAL(a$(j)):b1=VAL(b$(j))
300 IF a$(j)="" AND b$(j)="" AND c2=0 TH
EN c$(j)="":GOTO 350
310 c1=0:c2=0:c1=a1+b1:IF c1>9 THEN tp=c
1:c2=1:c1=tp-10
320 IF c$(j)<>"" THEN a1=VAL(c$(j)):a1=a
1+c1:c1=a1:IF c1>9 THEN tp=c1:c2=1:c1=tp
-10
330 c$(j)=MID$(STR$(c1),2):c$(j-1)=MID$(
STR$(c2),2)
340 NEXT j
350 PRINT "[clr]New number                = "
;:FOR m=j TO 100:PRINT c$(m);:NEXT
360 PRINT:PRINT "Swaps                      ="
;swop:RETURN
```

cont. on next page

continued from page 37

Blitz program - last touches

```
 18 NEXT k:IF cm$="save" OR cm$="restore"
  THEN 700

 700 REM save or restore conversation
 705 IF cm$="save" THEN 750
 710 GOSUB 780
 715 OPEN 2,8,2,"0:converse,s,r"
 720 INPUT #1,bf,flag,mflag,tflag,self,m,
you,mn,tn,gc,here,tm,bt,se,ao,sm
 725 CLOSE 2
 730 GOTO 10
 750 REM save conversation
 755 GOSUB 780
 760 OPEN 2,8,2,"@0:converse,s,w"
 765 PRINT #1,bf,flag,mflag,tflag,self,m,
you,mn,tn,gc,here,tm,bt,se,ao,sm
 770 CLOSE 2
 775 GOTO 10
 780 PRINT:PRINT"Press SPACE when ready"
 782 GET a$:IF a$<>" " THEN 782
 784 PRINT:RETURN
```

100th the number 1. The 98th, 99th and 100th elements of c$ would then contain the result of adding all this up, namely 4, 4 and 4. Lines 310 and 320 are the real key, and if you remember the rules of addition and the fact that we are, as always, working to a numeric base of 10, then you should have no trouble in understanding the techniques involved.

Once you have done so you might try changing the loop in line 30 so that a particular number comes into range. Try FOR k=190 TO 199. I stated earlier that 194 was chosen totally at random, almost! Watch number 196 and see what happens, and they you may care to try thousand digit accuracy in the quest for a number that doesn't obey our rules.

For something that does obey our rules, we'll wrap up the psychiatrist program with an interesting amendment. It is the fifth amendment to our original program, but despite that it bears no connection with America. I wanted to wrap things up with a SAVE and RESTORE section, so that one could continue talking to the computer from a given point without repeating the whole conversation to date, and that is indeed what we will be doing. It was while setting about the task that the interest was aroused.

> ***"Like an adventure game, or role playing game, or any game that is sufficiently complicated to make saving progress worthwile, all we need to do is to find out the content of every variable that can be affected whilst the program is running and save all those variables to tape or disk."***

Like an adventure game, or role playing game, or any game that is sufficiently complicated to make saving progress worthwhile, all we need to do it to find out the content of every variable that can be affected whilst the program is running and save all those variables to tape or disk. Or restore them, of course, if the reverse process is being carried out. If, incidentally, you're one of those people who has been adding to the program as we've been going along, you'll need to dig out every variable that you've used. The programs as published in CCI contain sixteen different variables that need saving, your own copy may well contain more, but the same techniques apply nevertheless.

The first thing that need be done is to alter line 18 so that it reads as shown in the "Eliza program — last touches" listing. A minor change that takes into account the 'patient', if we can continue to refer to such, typing in the words SAVE or RESTORE on their own. Those two words might well form part of a sentence, which is why we don't use the MID$ technique and study the entire input. They will only be acted on if they are typed in as the only word of a sentence, since it is extremely unlikely that either word would otherwise be used on its own in a meaningful conversation with the computer. Typing in either word takes us off to line 700, where a relatively straightforward piece of programming copes with something that is really quite interesting, and which brings us deep into the heart of A.I.

The programing, as I've said, is simplicity itself, although it would need altering slightly for a tape-based user. If we're saving, then line 755 makes use of the subroutine at line 780 to wait for the user to press the space bar when ready (which means when they've got a disk sitting in the drive), but if we're restoring then it's line 710 that takes us there indeed. From then on it's just a question of opening a file, and then trotting off to line 10 for another input from our patient. Note that there is no check in the restore section of things to see if a file already exists, but it might be worth putting one in if you were going to be sending a copy of your own version of the program to a friend. Just open a dummy file first and read in the system error variables in the time-honoured way, then check to see whether the file's there or not. EN seems to be the variable that everyone uses for Error Number when doing this, so you might as well stick with tradition. Provided all is well you can proceed to close the dummy file, open the real one, and read in the content of all the variables. It is those variables that we are interested in.

Sixteen of them, in total, and each one set or reset by something that has been typed in by the user. It is worth taking a brief look at each one in turn, because between them they could easily be used to tell us about the character of the user. As this is the last article in the series there will be no program additions in next month's issue, but a little sub-program could easily be added that would take a look at all the variables and issue some comment about the user. By this I mean add a line that checks for the word "Quite" (or "Exit", or whatever word you choose) so that the user can leave the program, then examine all the variables and allow the program to make full use of its A.I. qualities and give a summing up of the user.

The first one saved or restored is the variable BF. This is there if the user's sentence has begun with the word "because", he or she is being hes

re"

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continued from page 38

affirmative and possibly slightly argumentative in trying to get a point over. The next three variables are FLAG, MFLAG or TFLAG, used to denote a conversation drifting into the realms of mothers, money and technology. An interest in any or all of these could easily be noted by a program. We then reach the variables SELF, M and YOU, which respectively inform us that the user is discussing themself, mother again, and the computer. Another three points of interest about the person at the other end of the keyboard from the computer.

MN, TN and 6C follow on from there, indicating the user talking about money, technology or just indulging in general conversation. Taken in conjunction with the variables already seen we can begin to build up a true representation of the user's interests. Or at least, those things they might talk to a computer about. If you have added your own sections to the program, then you could include those as well, giving an even more accurate portrait.

HERE is a useful variable, which shows us that the user is trying to hide something. Not fully discussing it, in other words. TM comes next, the patient is obsessed with money, and skipping three we get to SM, which indicates that the patient is showing some emotion at last and beginning to open up. The presence or absence of this variable being set could be used to tell us quite a bit about our patient. It use could be expanded somewhat, thinking about it.

That leaves us with three variables that we've so far not considered, but that is because they need to be treated as a threesome. SE tells us the sex of the patient, BT tells us that they have broached the topic of sex, and AO confirms to us their interest in the topic by telling us that this is not the first time that sex has been mentioned.

And you thought that you were just typing in response to a computer program's prompting. Those sixteen variables reveal quite a bit about whoever's using the program, perhaps more than anyone might have realised when this series first started, and with your own additions to the program as well you could begin to build up quite an exhaustive portrait of the person you've given the program to. If they're too shy to save the conversation to disk, you could always ensure that when they Quit or Exit the program automatically does that itself.

And that, faithful readers, is the end of my involvement with the Eliza program as a stand-alone Basic program. Over the last eighteen months I have covered three distinct topics on Commodore computers. We started off with arcade games, and a collection of programs for scrolling the screen and building up a large map that could be moved left, right, up or down, as the needs of the game dictated. We then looked at adventure games, discussing many topics withn that genre, solving, writing, publishing, etcetera, with insights into the playing of that particular type of game. We have now come to the end of a six month excursion into artificial intelligence. These topics reflect my own interests in programming activities at the time of starting them, and my current interest is one that covers all three of them, arcade, adventure, and artificial intelligence alike.

Many of you will have read Croftward's (yes, they publish CCI as well!) magazine, GM, devoted to the world of Role Playing Games, an increasingly important sector of the game market. That is the subject that will occupy my next series of articles for this magazine. We have dealt with the three "A"s of arcade, adventure and artificial intelligence. Now we shall combine them all and move on to the first "R": Role Playing.

P.G.

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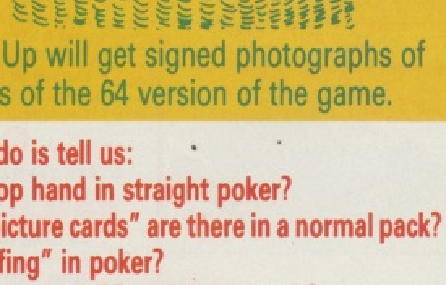
MARIA'S CCI XMAS BOX

WE'VE got a real special competition for you this issue. Thanks to Cill of Anco and of course Anil Anco's boss for the brilliant idea) Maria Whittaker of Page 3 fame is offering to give you a very attractive and personal Christmas Box. Anco, well-known already for their Strip Poker series of computer games, have persuaded the famous and very well-endowed Maria to pose for a new Strip Poker games called (yes, you guessed it!) "Maria's Christmas Box". Anco's Gill who very valiantly watched through the whole photo session (We tried for an invite but so did 5000 other computer magazines too!) says that Maria is a very nice girl. We are sure she is . . . She has such pleasant attributes . . . Anco and Maria are giving CCI readers some great prizes including personally signed photos of Maria and copies of the Strip Poker game on the 64. (You will have to buy an Amiga and Amiga User International Magazine on for the even more explicit, from the technological sense, of course, version).

The first prize is . . .



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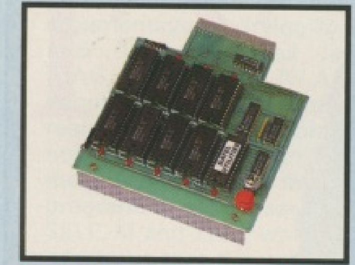

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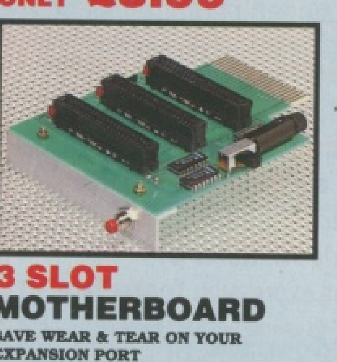

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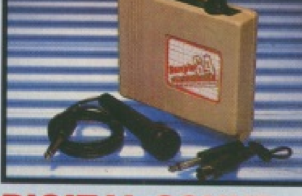

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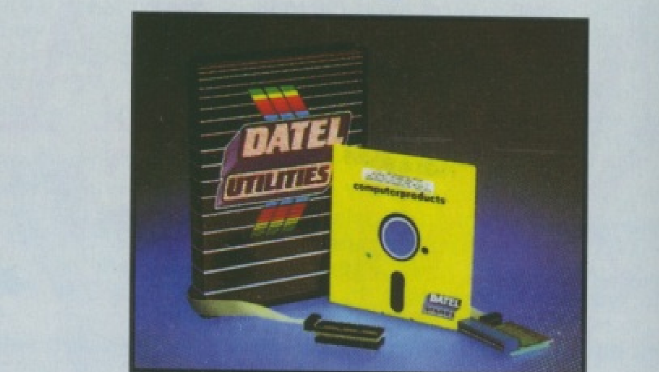

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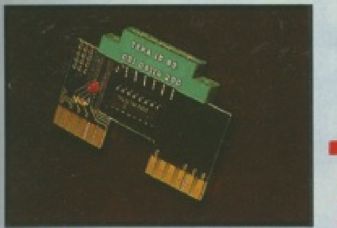

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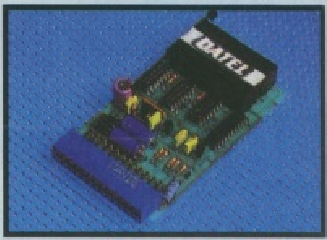

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EPYX FAST LOAD

Nigel Streeter finds a plain and simple fastloader from an unusual source.

This is not really a review, more of a re-visit! The Epyx Fast Load Cartridge has been around for quite a few years now and is still available through US Gold. Epyx are better known for their marvellous multiple games than for utilities or peripherals. Nevertheless they do their reputation no harm with this product.

In these days of "let's see what else we can cram into a cartridge to make it better than the rest', it's almost like a breath of fresh air to plug one in that, on turning the computer on, presents you with just one word: **"Fastload"!**

At this point you are able to list the directory without erasing the program in memory, load and run a program using the Commodore an Run/Stop keys together, load and save files, send disk commands and read the disk error channel.

Pressing the "£" key will take you to a menu of six Disk Tool options. The obvious ones being: Directory, Return to Basic and Disable Fastload. The others are: Copy, Edit Diskette and File Utility.

Selecting the "Copy" option allows you to format or copy a disk, copy individual files or do a BAM copy. BAM is the **Block Availability Map"** stored on the disk by the Disk Operating System, and is simply a checklist of all the blocks on the disk. Every time a file is saved or erased, the BAM is updated. All a BAM copy does is to copy those blocks that are allocated. This is much faster than copying the entire disk.

The **"Edit Disk"** option takes you into a very basic and simple Disk Editor that allows you to read, edit and write individual sectors on the disk.

"File Utility" brings up another menu where you can elect a copy or delete a file, change the name of a file, "lock" a file (thus making it impossible to delete), or "unlock" a previously "locked" file.

Apart from the above mentioned disk tools, the Fast Load Cartridge also contains a pretty decent machine code monitor, called SMON. Pressing "!" enters the monitor, which will accept input in HEX, DECIMAL or ASCII. All the usual commands are here for manipulating machine code including loading and saving, disassembling, moving, re-locating and executing. Plus a few of the more unexected commands like disassembly printing indirects or absolute and zero page references, or execution of code with register display after each instruction. And a number converter to HEX, DECIMAL, BINARY and ASCII.

The Epyx Fast Load Cartridge doesn't pretend to be anything that it is not. It cannot possibly compete with some of the more modern all-singing all-dancing cartridges but, if you want a plain and simple cartridge that will speed up the loading from your 1541 Hippopotamus, with a few very useful utilities thrown in, then you will probably be quite satisfied with this one.

N.S.

Price: £24.99

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MIDNIGHT ASSEMBLY SYSTEM

Bob Collyer takes a critical look at a 128 version of a 64 favourite.

Mountain Wizardry Software from the States have come up with a new 128 version of their popular 64 Midnight Assembly System. Some of the special features of MAS 128 include the ability to execute from RAM 0 or RAM 1, generating code into the opposite Bank of memory. You also have the ability to generate code into a slave 64 or 128 via a cable. No ROM routines are called at all. This could allow you to develop your own customised ROM replacements. Something which I imagine could lead on to a host of new ideas and inventions by altering the internal ROM routines.

MAS contains its own built in 1700/1750 RAMDOS. Text entry is free format allowing multiple statements per line of text, the editing system is full screen as you would expect with such a comprehensive assembler.

The disk itself is not autobooting, a helpful feature as most programmers are always hitting the reset button. MAS 128 runs in 80 columns and has a handy HELP file called up by pressing the HELP key. With this help one can quickly become familiar with the working immediate commands and some of the pseudo-opcodes.

BNK immediate command (not to be confused with the basic command) selects the memory configuration. This specifies the value to be stored in $FFOO. For example BNK$3F selects RAM O or BNK$7F selects RAM 1. You would use this command in conjunction wth the JSR and DUMP commands, this means that it becomes possible to swap around the usual system of MAS 128 from one bank to another.

CMD displays a list of commands currently implemented by MAS 128. Some of the commands listed are reserved for personalised customisation and may be implemented by the technically-advanced user plugging the address of his own subroutine into the Immediate Command Vector Table. For example, the 3 letter immediate commands NOP and USR are left open for definition by the user, just one more good idea to come out of this package. It is even possible to adjust the screen output by changing the colour, rows, screen, attributes and vertical fine adjust.

These immediate commands are the more notable improvements overs its predecessor the 64 Midnight Assembly System which in its own right is a very good symbolic assembler. They both employ the usual two pass method of assembly, all files are prefixed with the date they were created. Symbolic labels can be up to 100 bytes long, unique by colour, supporting both upper and lower case, numeric or graphic characters. Automatic line numbering, renumbering, moving, copying swapping or deleting make programming a complete breeze.

Thirty two pseudo-opcodes from the original assembler are enhanced in this 128 version by the inclusion of four more pseudo-ops to enlarge the flexibility of programming with the Midnight Assembly System.

Conversion of different file structures are catered for. You can convert your old assembler files to MAS with several different conversion commands. Source files from PAL, MAE CBM ASM, generic PETASCII, ASC or USA ASCII can be handled. You should be aware though translating source files to MAS structure will entail at least some, and occasionally, lots of rewriting in order to maximise the power of the MAS assembly language.

The numeric keypad can be utilised as user definable function-keys by pressing *shift* and a numeric key. For example, Key 1 "M. Montchalin" defines numeric key 1 with the name of the author of MAS 128. Rather you can program this key with something else you will use more often.

The system handles extensive disk support, fast loading with 1571/1581 drives. A well documented copious manual containing over 300 pages! All these things add up to make a great improvement over the original.

On the disk there are a couple of demo programs. A music demo and an animated graphic swirling sprites demo. Both of which you can read or load/assemble and run. It is easy to edit the demos, a handy way in which to muck around with the code and learn MAS assembly language. I found the Midnight Assembly System for the 128 to be a very versatile system, complete in many ways, and the old 64 MAS system comes of age.

B.C.

Contact: Financial Systems Software Ltd, High Street, Pershore, Worcester
Tel: 0386 553153
Price: £14.95

'The Player Of Games' by Iain M. Banks (Macmillan £11.95)

Despite the proliferation of computer games the old conventional board games still seem as popular as ever. In 'The Player Of Games' takes board game playing to its ultimate peak for on the result of the final depends not only the fate of men but also of their planet.

The hero, Jurnau Gurgeh, is the acknowledged master of games-playing in the 'Culture', a world — eleven milleniums hence — which appears to be almost Utopian. No crime, violence, war or greed. Its inhabitants can change sex at will ('Don't look now but is that John or Jean?'), grow new parts when the old bits degenerate and even manufacture drugs of all kinds, within their own bodies, without peril to themselves (Just like Ben Johnson!). Life is lived in he pursuit of happiness.

Gurgeh's main pleasure is the playing of all kinds of games. He's a kind of games grand-master but, unfortunately, he's bored. There is no-one in the Culture who can beat him or with whom he can match wits or expertise, although many try. Then he is told of the 'Empire', a world where all governmental jobs rely on how good a player one is at an extremely complicated game called 'Azad'. Once every six years the ruling class — which consists of three sexes, male, female and apex — compete to discover who will be pro-or-demoted and the ultimate winner becomes ruler over all. The game can be played singly or with partners and the various stages cultimate in a Grand Final which takes place on another planet which is constantly consumed by fire. The only drawback, apart from the danger of getting quick-fried, is that to reach the 'Empire' and then return takes five years and Gurgeh does not feel inclined to leave his own world for that long.

Here I must mention the drones. They are small, saucer-like, infinitely intelligent, 'servants-cum-companions' to Culture inhabitants. In addition they also protect the planet from any potential enemies. Drones are not robots, although they are not human, either, but they do have remarkably human characteristics occasionally. They have a sense of humour, can sulk and even bear malice for real or imagined slights.

During the course of a game Jurnau Gurgeh is persuaded to cheat, as an experiment, by a conniving drone who later blackmails him into going to the Empire. What he doesn't know is that the Culture has set it all up because they fear that the Empire will get to know too much about them, become envious and want to take them over. If Gurgeh can compete in the Azad championships, and win, the threat of this will be negated.

The tension of 'The Player Of Games' is generated by the fact not only is the reader kept continually wondering whether Gurgeh WILL win, for there are several times when this is seriously in doubt, but in what will happen when — and if — he does. For the twists and turns in the plot are as complicated as the game of 'Azad' itself.

Gurgeh is a complex, but always intriguing character. Iain M. Banks succeeds in drawing a portrait of a man who is at once ever in search of new experiences but who has an inborn reluctance to change the status quo. And the drone who is his companion during the time spent on the Empire's planet seems almost to be a kind of coic relief, a Sancho Panza to Gurgeh's Don Quixote — or is he?

Iain M. Banks' other novels include 'The Wasp Factory' a best-seller which was a very compelling story. 'The Player Of Games', too, is one that deserves to become top of the league.

D.M.

'A Brief History of Time'

Stephen W. Hawking (Bantam Press £14.95)

Stephen W. Hawking has three claims to fame. He is one of the world's leading cosmologists, he is widely regarded as the most brilliant theoretical physicist since Einstein and, for the last twenty years he has continued his work on mathematics whilst confined to a wheelchair suffering from motor-neuron disease, (the same disabling disease that eventually killed film-star David Niven).

'A Brief History of Time', has been written with the help of three assistants, four secretaries, a team of nurses, a personal computer and a speech synthesizer. The last named was donated by a firm called Speech Plus, based in California, because while writing the book Stepehn Hawking caught pneumonia which necessitated his having a tracheostomy, this removed his ability to speak and made it almost impossible for him to communicate until the synthesizer came along.

It seems incredible that someone so physically disabled as is this Professor of Lucasian Mathematics at Cambridge University, (a post once held by Isaac Newton), can not only carry on with his work at the University but could have even attempted to write a book that sets out to explain, in plain language, the 'basic ideas about the origin and fate of the universe that ... people without a scientific education can understand'.

Has he succeeded? Well, the book has been at the top of the best-sellers list almost from the day it was published, which must say something.

Even one as dumb as I have physics could understand most of what he was explaining, even if I did have to read and re-read many of the paragraphs several times before the information they contained sank in.

'A Brief History of Time' has the sub-title 'From The Big Bang to Black Holes' and that says it all. Professor Hawking takes us from Einstein's general theory of relativity which predicted that space-time — or the universe as we know it — began with the big bang, (nothing to do with the recent stock-market contretemps of the same name!), and would come to an end either with a big crunch, in which the whole universe would collapse, or would disappear inside a black hole, (which is another name for a collapsed star), to his own theories about the same subjects.

On the way he goes into — amongst other things — quantum mechanics, the theory of which underlies nearly all of modern science and technology, for 'it governs the behaviour of transistors and integrated circuits which are the essential components of ... computers', the Newtonian theory of gravity, the law of thermodynamics, scientific determinism, quarks and glueballs.

The names physicists and scientists give their discoveries seem to indicate that they have a particularly sharp sense of humour. For apart from the aforementioned quarks and glueballs there are quasars, or quasi-stellar objects, and when Jocelyn Bell a research student at Cambridge and her supervisor, Antony Hewish announced the discovery of objects in the sky that were emitting regular pulses of radio waves, which indicated the existence of black holes, they called the first four sources to be found LGM 1-4. LGM stood for 'Little Green Men'!

The most amazing thing about this book is that although the subject matter is so esoteric, the manner in which it is written makes most of it absolutely understandable. I say 'most of it' because the Professor did, occasionally, go above my head.

By the way, this book was turned down by at least four big British publishers before it was accepted by the publishers who finally took it. A case of the heavy weights being beaten by a bantam?

D.M.

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Mona Lisa Overdrive

Gollancz Ltd., £10.95

THERE are innumerable ways to write a novel. To unfold the story at a leisurely pace, to go slapbang into it and carry on at speed, to have plateaus of calm interspersed with high points, etc., etc.

William Gibson in 'Mona Lisa Overdrive' finds what seems to me an entirely new way. The nearest thing that I can compare his writing to is a well-scripted, action-packed, television play, a series of rapidly changing scenes which carry the action forward and which keep the viewer, or reader in this case, on his/her toes the whole time. Miss scene at your peril.

The three principal characters in this book are all female. Angie, a drug-addicted, holo-video-stim (sic) superstar, coming out of a detoxification programme; prostitute Mona, who spends practically all her time spaced out on 'wiz', a marijuana-type substance, and Kumiko, who has been sent, for her own safety, to London by here Japanese crimelord father.

The action is set in London of the future, Los Angeles — re-named with justification, I think, the 'Sprawl' — and Dog Soli- tude, a scraphead wasteland which could be anywhere.

Dog Solitude contains, in a derelict warehouse, the almost moribund body of Robert Newmark — The Count — Angie's erstwhile lover. He's rigged into a machine which contains a solid lump of microchip that can provide holo-graphics of his thoughts and into which another character, Slick, at the urging of computer genius Gentry, can protect himself. Exactly why Gentry insists on this eluded me, I must admit.

Angie wants to find Robert, the enemies of Kumiko's father want to find Kumiko and Mona wants to find herself. There are other peripheral characters, too, and I found them, in fact, more interesting than Angie, Mona or Kumiko.

There's a gun-toting moll who starts off as 'Sally' turns into 'Molly' and ends up as 'Jane'; Angie's bald, black, gay, hairdresser, Pophyre, who looks like 'a greyhound on steroids' and dresses in Paris-designed clothes and there is Kumiko's 'com- panion', Colin. Colin is a 'ghost', a hologram housed in a hand-held biochip unit, who appears when Kumiko presses it. Now he is what I think would be a most useful object to have around. A going-away present given to Kumiko by her father, with whom she has a love-hate relationship because she thinks he caused her mother to commit suicide, Colin can communicate by picking up messages through his owners' skin, he's multilingual, able to record human speech like a tape-recorder, even when he's switched off, and a mine of useful information about anywhere he is at the time.

There are also a few other characters wandering about in a cyberspace matrix who keep impinging themselves into Angie's brain, but I wasn't quite sure who *they* were.

To be perfectly honest, I couldn't always under- stand 'Mona Lisa Overdrive'. Maybe that's because I should have read 'Neuromancer' (now about to be launched as a computer game) and 'Count Zero', the first and second books in this trilogy before I started. Nevertheless, it's an interesting story on its own. Try it if you would like a new experience and — I challenge you! — see if you are better than I at understanding what it's all about.

D.M.

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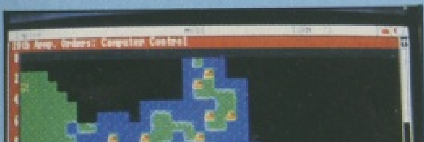
EMPIRE

Wargame of the Century

Interstel Corporation/Electronic Arts

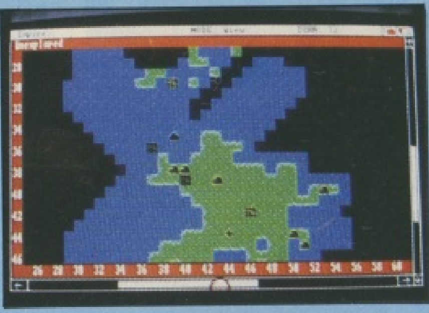
Computer games can generally be divided into two different categories — arcade games and adventures, with the further subdivision of the arcade-adventure. This works fine, until you meet with a game like Empire, which doesn't slot into any, it is in fact a computerised wargame-cum-simulation. Traditionally, most people's vision of wargames is of moustached old men huddled around a vignette battlefield covered in painted toy soldiers. Or to put it another way, about as interesting as watching milk go sour.

Empire is supplied in a large pack on one disk accomanied by a quick reference guide and a massive 63 page manual. Dedicated arcade addicts can switch off now because this game is not for them. Empire is a game for those interested in the finer details of strategy, planning and world domination. For most people the idea of a game you can really get your teeth into would be quite enough, but Interstel have found it necessary to gloss over the package with a dodgy space-age scenario, which, quite frankly seems out of place.



The disk is not protected so you can back it up or transfer it to hard disk. In order to play you must enter a couple of words from the extremely verbose manual. Personally, this is my favoured form of protection since it prevents most pirates from bothering and you can keep the original safe.

Once the game loads you may either select a demo mode or enter the game proper. Before you try to play the game, it's worth watching the demo for an hour or two, while the computer plays itself.

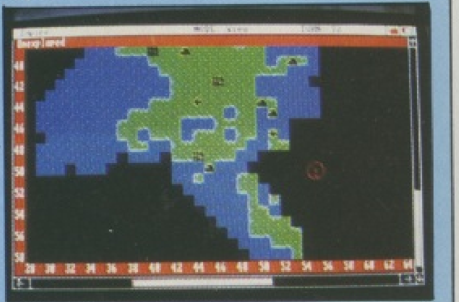


This will give you a pretty good idea of what to do, even if you don't bother to read the manual first.

Once you're in, the game presents a rather blank-looking display — no frilly extras in this game — in fact the only definitive high resolution graphics belong to the title game. The rest of the graphics are similar to those found in SSI games like the Ultima series or the Public Domain offering, Larn. Selecting the project menu, gives the option to either design your own worldscape or generate one at random. Random designs will get you started quickly, this can however put you at a disadvantage, especially if you end up on a small land mass with very few cities.

From here on you can explore the world. When the game starts, you know nothing about the surrounding territory or what lies within. But you can give commands to your single army to go in search of places to loot. This is achieved by clicking over the army to move, rubber-banding a line to their new position. As you assault and take over new cities, their resources become available. Each place can manufacture various types of armourment, ships and even recruit new armies — you decide which. The tougher the task you set, the longer it takes — although this factor is affected by the productivity of individual cities.

By the time you have spent an hour or two building up your army — in game time around 150 turns or so, you will probably start running into packets of resistance — the other players. Up to three people can play Empire, the others being either human or computer — there's even an option to play by mail, although I have not had the opportunity to try this out. Battles can take place on land or sea and are completed automatically with the computer acting as referee. Whether you win or not seems to be rather in the lap of the gods, but it does depend on many factors, not least the strength of individual armies.



All in all, Empire is a thoroughly enjoyable game which I have played for hours on end, right now my armies are ready to descent on Thermopylae, so I am just taking enough time out to write this before the Editor pinches the disk back. Although it should carry a government health warning — it can seriously damage your sleep patterns . . . Highly recommended.

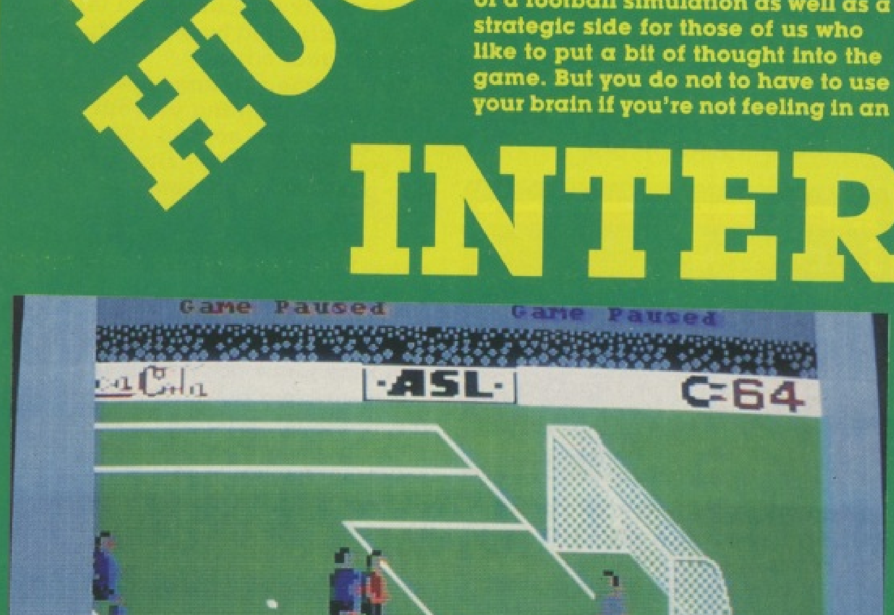
Now, let battle commence . . .

J.F.

Graphics: 4
Sound: 4
Playability: 10
Value: 8
Price: £24.95

Audiogenic

EMLYN HUGHES' INTERNATI



WHO needs Gary Linekae or Peter Beardsley when you can have Emlyn Hughes? Yes it's that squeaky little scouser from Liverpool behind the licencing from Audiogenic's latest game, Emlyn Hughes International Soccer. As I am sure, most of you who have the tiniest bit of interest in football simulations will have played Commodore's International Soccer, which in my books was the best to date. You can be forgiven for thinking that *EHIS* is the same game because they look almost identical, but behind those chunky graphics lies an even more realistic and fun games than the old CBM favourite.

EHIS has been programmed to combine all the fun and excitement of a football simulation as well as a strategic side for those of us who like to put a bit of thought into the game. But you do not to have to use your brain if you're not feeling in an energetic mood, because there are options which let you get straight into a match without any fuss.

On the main screen you are presented with a set of pull-down icons where all the options and settings are held. Together with the usual moves, you can also control your player to do the following at the correct time: backheels, sliding tackles, free-kicks, penalties, headers and diving headers, sidestepping and barging. To perform a slide tackle or either of the headers, all you have to do is press the fire button when your player is near the ball, and depending on whether the ball is in the air or not the player with either slide at the ball or attempt to head it. Although the graphics of the main sprite are very blocky and over expanded, they seem to have a certain character which makes them very cute. This is highlighted when you make a slide tackle and accidently(?) foul your opponent. A free-kick would then follow or a penalty if the foul were commited in the goal area.

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> ***"There is also a Cup knockout competition where the eight teams all compete, as well as nice touches such as players' skill levels and substitutes."***

A minor fault that I found when taking the penalties was that players from the opposing side could actually stand in the goal-mouth and prevent the ball from crossing the line. However, the copy that I had was not completely finished so that little bug may not even be in the copies on sale in the shops. Apart from this I couldn't find any other faults and for that the game ran very smoothly, partly due to it not being a multiload as so many games around these days are.

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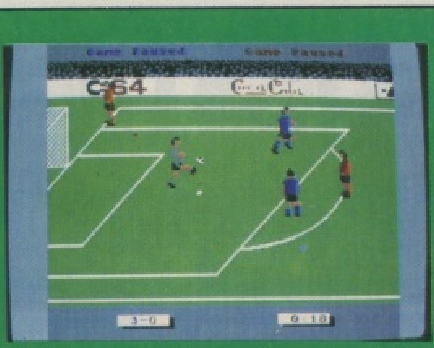
I could go on for ages talking about the hordes of options available because there are so many. A great deal of thought has been put into the variation of play never seen in any other soccer game before. The options range from changing the pitch colour (you can even have purple grass!) to a 'save all' facility which enables you to save up to eight teams, scores, fixtures and league tables. There is also a Cup knockout competition where the eight teams all compete, as well as nice touches such as players' skill levels and substitutes.

The sound is the games worst point, with very annoying music and poor sound effects. The only sound fx that I liked was the cheering of the crowd. Whenever the ball is saved by the 'keeper or goes just wide of the goal, the crowd become excited and cheer you on. This adds to the tension and has you on the edge of your seat as you see the ball ricochet off the crossbar and into the goal.



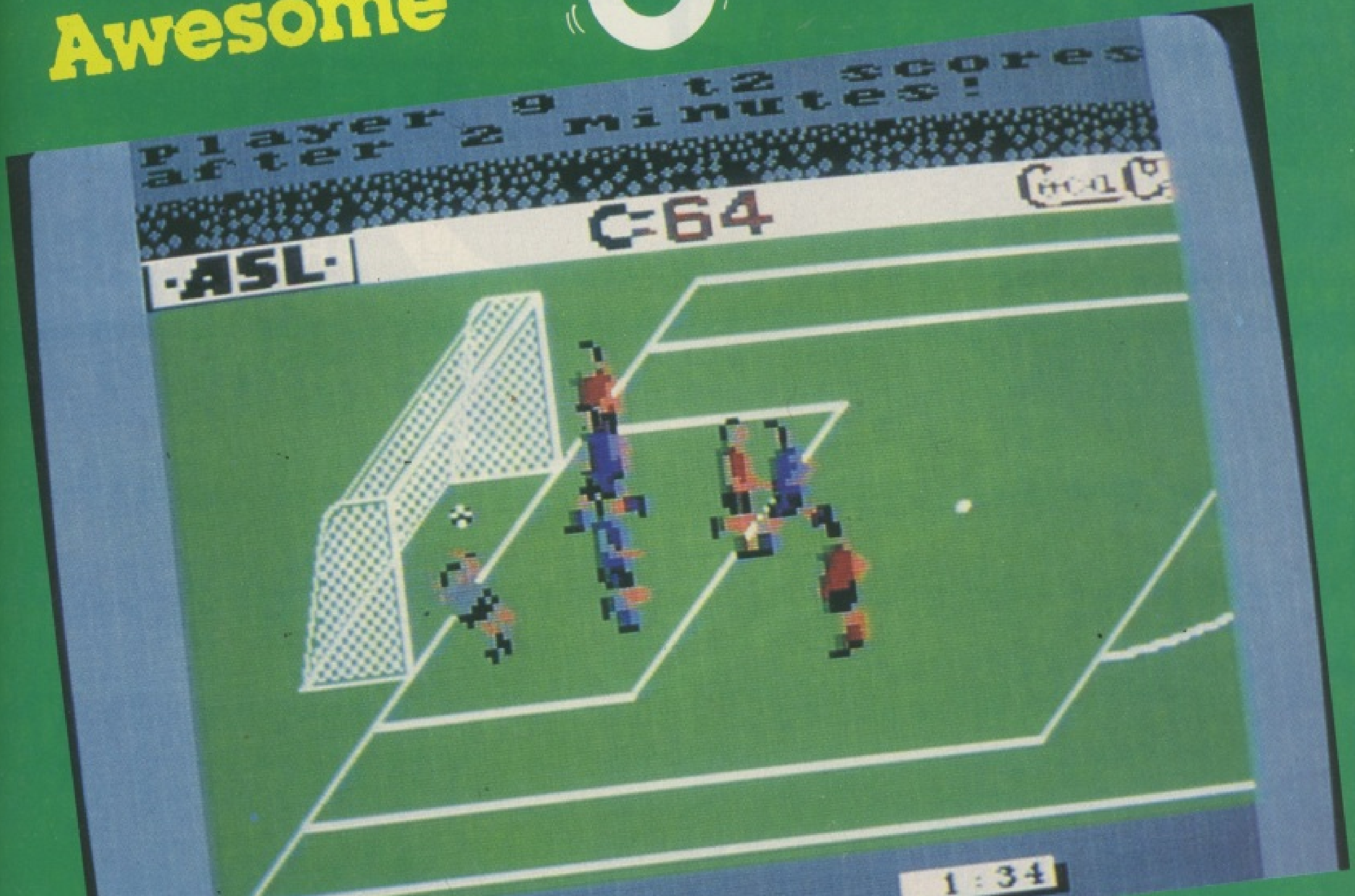
As you can see by the screen shots, the graphics are not of the highest standards, being very blocky, but it is the actual gameplay which makes *EHIS* such a fun and enjoyable game. I would go as far as to say that it is the best football game ever with the perfect blend of strategy and captivating play.

D.H.

Graphics: 64%
Sound: 32%
Playability: 94%
Overall: 92%
RATING:
Awesome

TIONAL SOCCER

Awesome



player 9 t2 scores after 2 minutes!

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2. Best ADVENTURE game
3. Best STRATEGY/WAR game
4. Best MUSIC with game
5. Best USE OF GRAPHICS

Name ....
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....
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C64

IFFY

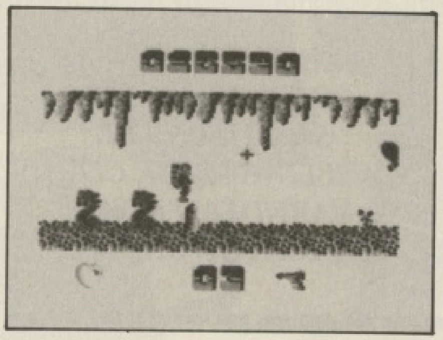
GAME OVER II

Dinamic

After the hype and attention that has surrounded Dynamic's releases in the past, the underlying games have always seemed pretty ordinary. Surprisingly, Game Over II marks no change in his unfortunate situation.

The game gets off to a less than enticing start with the initial horizontally scrolling shoot 'em up stage. Weedy aliens slide about the screen in some of the most drab formations seen since Scramble. These are intermingled with bouts of asteroid attacks until the featureless starscape background changes to a planet surface. Volcanos throw up rocks dangerously close to your ship, small meteors plumment to the ground and the few remaining aliens continue to harass you. Stage three has you zapping wormy monsters in similar sub-terranian scenery.

"To begin with you are without any form of missile but instead have a strange bouncy green head following you around. The baddies roll up on space-hoppers which can only be killed by touching them with your faithful green blob"



Stage four of the first section introduces a welcome variation to the proceedings. Riding a dinosaur-like creature (just like the one in Rim-runner) your defence against the monsters now takes the form of a flickering globe. This can be extended in a number of directions giving a skilled player all-round protection. Sadly the repetition is too prominent, resulting in premature boredom.

To avoid having to play through all the earlier screens once they have been completed, a code is given on the completion of the first section which allows instant access to the second.

Section two has you controlling a jet-packed spaceman in a flip-screen arcade adventure/ platform game. To begin with you are without any form of missile but instead have a strange bouncy green head following you around. The baddies roll up on space-hoppers which can only be killed by touching them with your faithful green blob.

Soon enough you find the Ionic turbo laser and the game reverts to a more standard jump, search and shoot orientated adventure. Extra lives, weapon upgrades and an access pass are some of the objects to be sought.

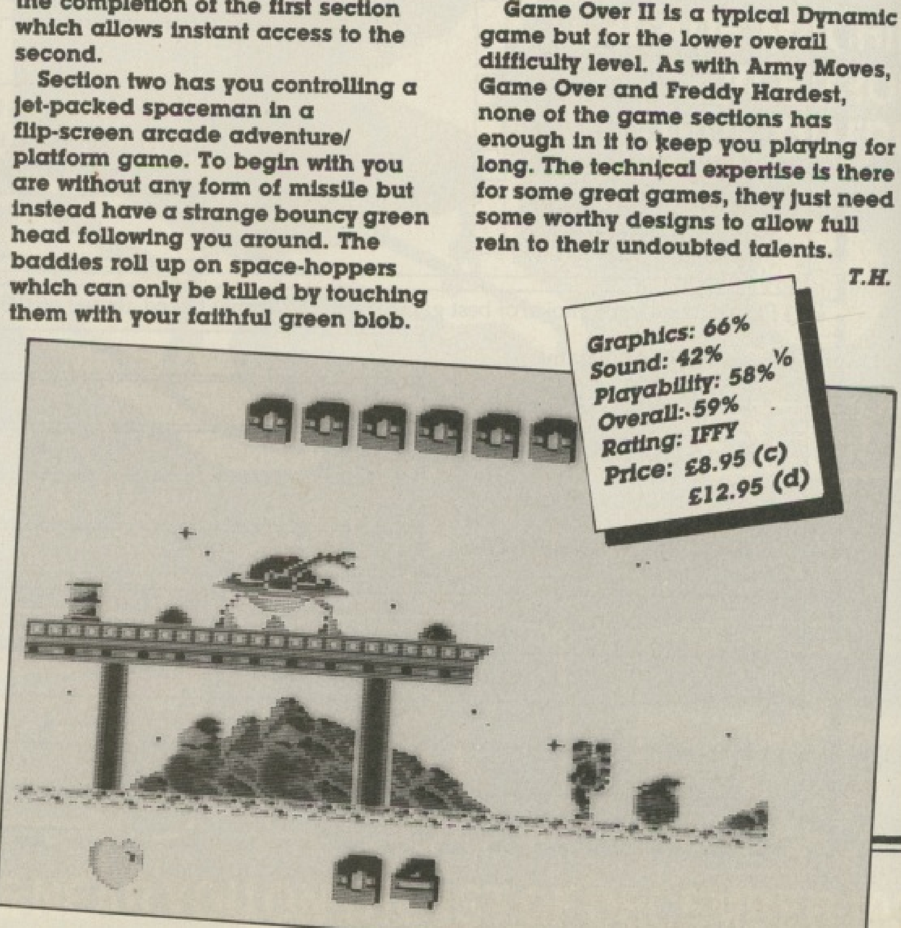
Game Over II's strongest point is its variety. The problem is that only the final stage is up to scratch, and even that has some very familiar game-play. These well-worn game ideas do not fit together as one game, giving more a feel of a compendium than a single flowing game.

In places the graphics are very well drawn and animated. In others, the shoot 'em up section for example, they are extremely weak. Throughout the whole game there are a number of sound effects but too often a single effect overwhelms all the others.

Game Over II is a typical Dynamic game but for the lower overall difficulty level. As with Army Moves, Game Over and Freddy Hardest, none of the game sections has enough in it to keep you playing for long. The technical expertise is there for some great games, they just need some worthy designs to allow full rein to their undoubted talents.

T.H.

Graphics: 66%
Sound: 42%
Playability: 58%
Overall: 59%
Rating: IFFY
Price: £8.95 (c)
£12.95 (d)



C64

IFFY

TRIVIAL PURSUIT

A NEW BEGINNING

Domark

Take Trivial Pursuit, strip out all the board game elements, replace them with some aliens and a bit of space travel and you end up with Trivial Pursuit — A New Beginning.

The story tells of a time in the future when Earth is dying. Genus II, a life-supporting planet is the destination of an organised migration. The problem is, the inhabitants are fussy about who they allow onto the planet and so a test of trivial knowledge must be passed before they approve of you.

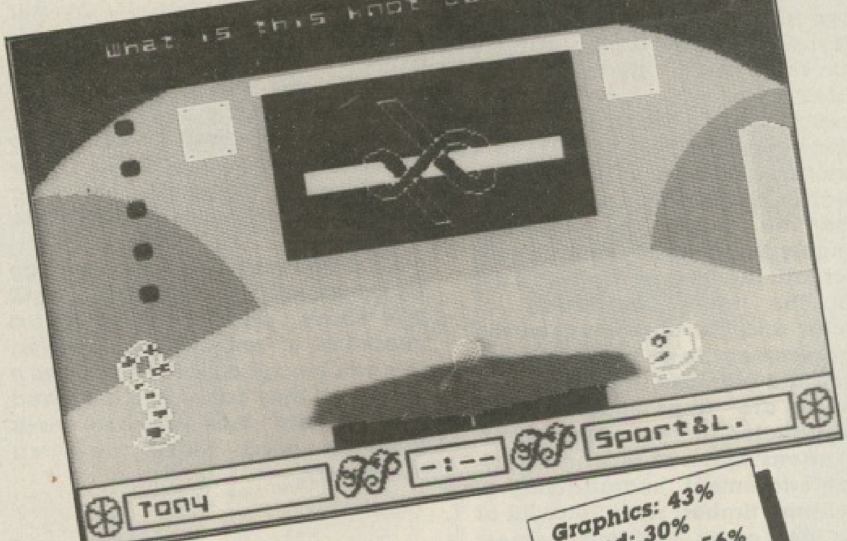
You start at the launch pad on Earth. All the players line up and are asked questions in turn by a character known as TP (you may remember him from the original game). Get the question right and you are taken out to the rocket and blasted into space. Get it wrong and you go the back of the queue.

Once in space it's time to choose a planet to beam down to. Six wedges are needed before you can get to Genus II, one of which can be found in each of the six galaxies. Select a planet and beam onto its surface where an alien will ask you a question. The planet names are said to hold clues to their subjects, but I failed to grasp any connections. If there is no wedge on the planet, a correct answer is needed to make another selection.

> **"The new version has all the questions but scenario is very weak."**

Some variety is introduced when very occasionally a graphical or musical question is asked. Once all six wedges are in your possession you can fly off to Genus II. The Elders quiz the players until they are satisfied of their worth, whereupon a tune is played and you are congratulated on your achievement.

The original Trivial Pursuit board game obviously had a lot of time put into its design. The new version has all the questions but scenario is very weak. All this stuff about flying through space really has no bearing on the skills demanded from the player. It only serves to provide a few new backdrops for the questions. Trivia games have lost a lot of the appeal they held a couple of years ago, and this is no exception.

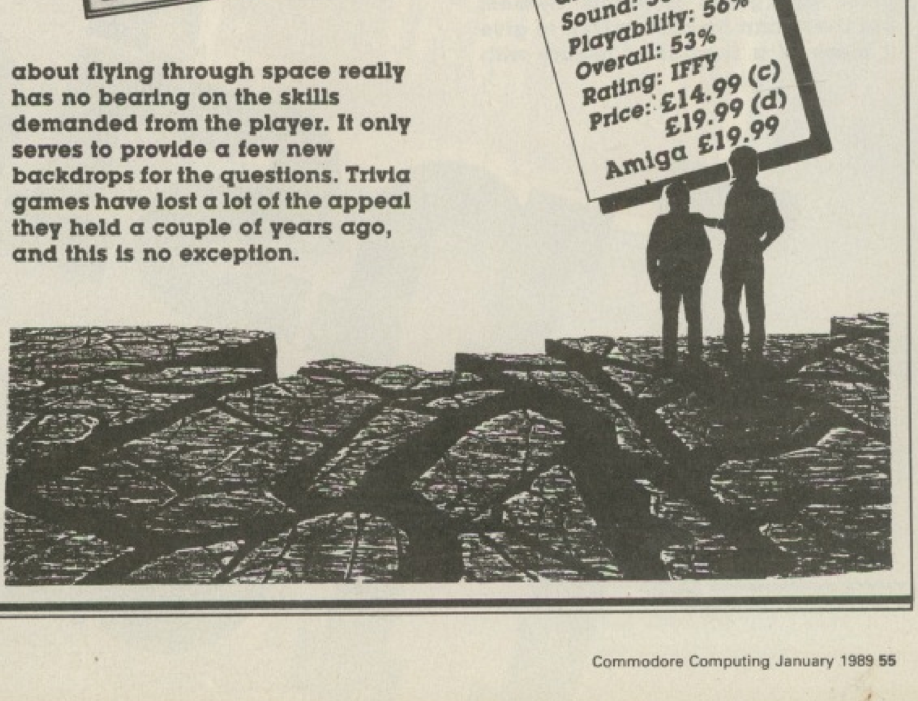


What is this knot called?

Amiga and C64 versions are virtually identical. Graphics are slightly less blocky on the 16-bit version, with a few samples here and there but that's about it. Anyone with the first game needn't bother with the sequel, and I can see little reason why anyone else should choose this over its forerunner.

T.H.

Graphics: 43%
Sound: 30%
Playability: 56%
Overall: 53%
Rating: IFFY
Price: £14.99 (c)
£19.99 (d)
Amiga £19.99



Inside Trader

Whenever share dealing rooms are shown on news and analysis programs they always show the banks of computer screens. The latest PC game release from Microprose and Cosmi now allows you to feel what share dealing is really like using your own machine.

The Inside Trade game involves the buying and selling of shares, via your terminal, on a fictitious stock exchange. You commence your career as a stock broker with initial capital of 50,000 dollars, the object then is to increase this into millions.

Windows are used to show four aspects of the dealers job. A ticker-tape giving the latest prices of all the shares on the market, a small command window, an events window showing stories that will effect share prices and a status window giving details of your portfolio. The events shown in the Event window have different effects on the share prices and you must use your skill in interpreting these. They range from the announcement of expected results by the government to major world events such as the accidental launching of a nuclear missile at Moscow or the prediction of the end of the world by scientists. Both of these, of course, cause the shares to nose-dive. Strangely the missile event did not effect all the shares and if fact, after the total destruction of Moscow and the agreement of the US government to re-build it, some shares did increase in value.

There are approximately 100 shares quoted on the market covering various areas of business such as entertainment, manufacturing, petroleum, timber, retail, etc. All of these are given fictitious names, but these can be customized to give it more of a flavour of reality with the use of major international companies. The Events file can also be customized so that this area can be brought closer to reality by the use of real events.

"An Option is available to destroy all the evidence. The result of the investigation depends on your actions and ranges from nothing to a hefty fine."

All this is standard stuff and does not relate to the title of the game, Inside Trader. As part of the Events file inside information items are also offered for sale. These can be expensive but do provide the means of increasing your capital quicker that reacting to news events. There is a problem however, as you can be investigated by the Securities and Exchange Commission for insider dealing. Your response to this depends on whether you want to co-operate with the investigation or not.

An Option is available to destroy all the evidence. The result of the investigation depends on your actions and ranges from nothing to a hefty fine.

No companies actually go bankrupt, all that happens is that the share price remains at a minimum of one dollar. However, this can be a good time for you as a dealer as they can only go up and even a fifty cent increase gives quite a good return on your investment.

The game obviously falls into the simulation category and gives a good feeling of what life may be like as a share dealer. All communications with the game is in the form of commands and these could be the games only fault as some are lengthy and cannot be abbreviated. As usual with Microprose this is a well constructed and presented game which comes on 5 1/4 inch disk with a sixteen page manual.

L.K.

Price: £24.95

IF YOU WIN, YOU LIVE IF YOU LOSE.........?

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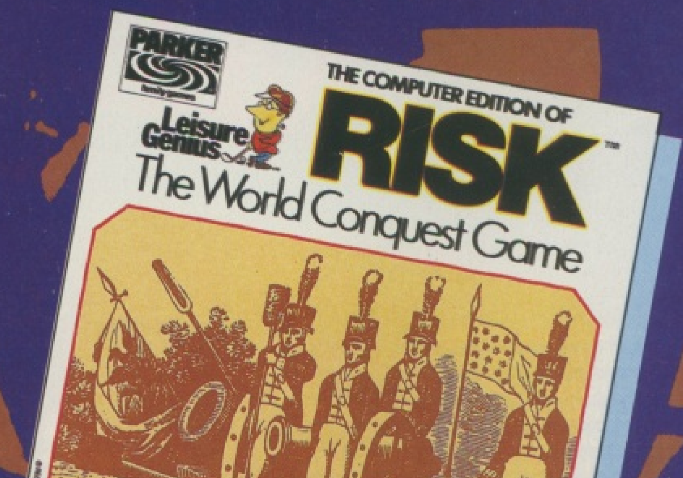

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WAR IN MIDDLE EARTH

Melbourne House

Tim Metcalfe wanders through a cultworld and reveals himself a Hobbitomane . . .

The classic fantasy trilogy, Lord of the Rings, has never really been done justice by computer programmers. The last two attempts at creating adventure games based on these classic books have, to say the least, been pretty awful. Now, at least, Melbourne House have come up with a genuinely good game based on Tolkien's magical world. It's called War in Middle Earth . . .

Strategy, action and adventure are all part of War in Middle Earth, the first release from Melbourne House since the company was taken over by Richard Branson's Virgin software operation. But work on this game began a long time before Melbourne House was even a gleam in the record magnage's eye.

Created in the USA by Synergistic, a game development team packed with Tolkien addicts, this latest addition to the growing number of computerised fantasy games is about as accurate a representation of *The Lord of the Rings* trilogy as you're likely to get.

You can simply load the game and sit back and watch, as the events in the books are replayed on the small screen by animated characters in glorious technicolour! If you want to play the game you can do that too . . .

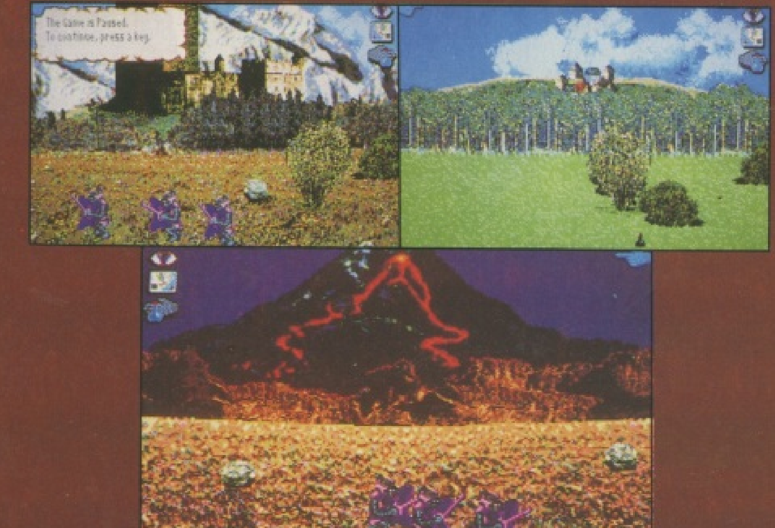
You can play it at 'character' level, becoming Frodo on his journey to Mount Doom where he must destroy the all powerful Ring which gives Tolkien's trilogy, its title. Alternatively you can play wargame style — mobilising the various armies of Middle Earth against the evil warlord Sauron.

The game scenario must be familiar to everyone — but in case you have had your head stuck down a hobbit hole for the last couple of decades, here is a brief look at the plot of War in Middle Earth.

Frodo has inherited The Ring from his uncle Bilbo Baggins, Frodo's mentor, Gandalf the Grey has revealed the true power of the ring to his young friend and has told him he must destroy the evil thing by dropping it into the flames of Mount.

Mount Doom just happens to be slap bang in the middle of the lands controlled by Sauron. But being a good egg, Frodo decides he must save the world.

This is where War in Middle Earth begins. The players first task is to get Frodo to Rivendell safely — evading the Nine Nazgul. Then you must attempt to move south to the dark lands of Mordor.



The Game is Paused.
To continue, press a key.

Frodo has to find certain objects which will help him win the hearts and minds of the nations of the west. You will need these armies to thwart Sauron's serach for the Ring Bearer and fight off the hoardes of orc and dunlendings controlled by the warped wizard Saraman.

If you are a true Hobbitomane you can simply follow the plot of the book — and you might make it to Mount Doom. However, in the computer version Frodo can die — and a new Ring-Bearer can take over the sinister burden.

The Ring can also be captured by the forces of evil — but whoever holds it still has to make it back to Sauron's headquarters. You can stop that happening and still manage to destroy the Ring.

THE GAME STRUCTURE

This game takes place on more than one level. Firstly there is the 'Full Map Level'. This is simply the complete map of Middle Earth. You can move around on this to see where the major forces and characters are at any one time.

Then there's the 'Campaign Level'. In practice this is where most of the action takes place. It's a more detailed map of the lands of Middle Earth. On it you see small representations of major characters, together with icons representing armies, fortresses, towers and so on.

Finally there's the animation level. This gives you a detailed and graphically impressive view of a single location. Characters are represented by animated figures moving against a digitised background in a similar fashion to recent Cinemaware products.

On this level you can instruct indivisual characters to use items, direct their actions in combat and even engage in conversations with other characters who appear from time to time during the game.

CONTROLLING THE ACTION

It is possible for you to give orders to every individual orc or elf in the various armies of Middle Earth — but you can take control of the actions of the major well-known characters featured in the books.

There are two types of 'playing pieces' under your control. First, the characters familiar to Tolkien readers.

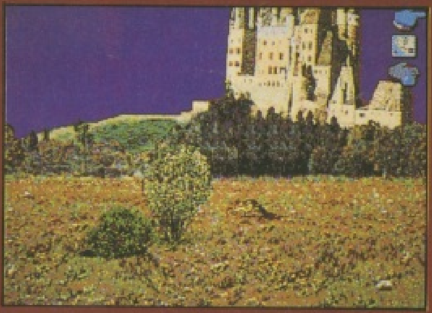
At the start of the game you control the actions of three hobbits, Frodo, Sam and Pippin. As you go through the game you'll meet other famous names — and some will join your quest. If you play your cards right, you'll soon have Strider, alias Aragorn, and Merry joining your band of adventurers.

Other characters, like Elrond and Tom Bombadil, are non-player characters, but will give you useful advice and information.

At the start of the game each character will follow a pre-programmed set of actions. If you decide not to interfere and order them to do something, they will continue to go through their programmed actions — right until the end of the game, if that's how you want to play it.

Secondly, there are armies of dwarves, elves and men. They are represented on the campaign map by icons or 'badges'.

These armies operate in units, ranging from a division of say, around 100 troops, to a massive force of several thousand soldiers. You can move these forces around the map and bring several units together — but you can't split up individual groups.



But beware, they actually behave as real forces would. They can only move a certain distance during a day at a certain speed, they get tired, and they sleep when it gets dark.

ICONS AND WINDOWS

Movement, issuing commands and swapping between levels are controlled by a simple icon system.

A useful icon to get to grips with while playing is the Eye, which allows you to gaze into Galadriel's Mirror, which as every good Hobbitomane knows, is the magic pool in Lorien. This tells you which evil forces are active — but unfortunately not what they are up to!

If you are in campaign mode and want to see other parts of Middle Earth, you can either call up the large scale map and use the 'magnifying glass' icon to examine the area you are interested in in more detail — or more simply, just scroll across the map using the cursor keys or joystick.

You can also use the 'magnifying glass' icon to take you into the animation level. Sometimes messages will appear in 'windows' on the screen which invite you to visit certain locations where something interesting is happening. It could be a battle or simply an encounter with another character.

Watching massed battles is enthralling. The graphic representation of the various forces is excellent. You can even get stuck in to help decide the outcome by urging your forces via another simple menu window.

You get a run-down on battle statistics in another 'window' if you choose not to visit the scene in person. You see the ebb and flow of conflict as the numbers of the opposing forces are depleted. At the end a further message tells you who won.

Individual combat is also controlled by a menu system. You can order characters to run away, fight or simply stand around and see what happens.

The game has its own 'clock' which ticks away the days at the bottom left hand corner of the screen. You can speed things up by altering the response time of the game. There are three speeds — normal, hasty and very hasty. Very hasty is not to be recommended until you are very good at the game. Things happen too damn quickly!

The finished game will come with two sets of instructions, one for a quick-start, the other more detailed for reading at your leisure.

There will be a poster sized map of Middle Earth and a comprehensive guide to the world Tolkien created which, if you haven't actually read any of the books, might just encourage you to do just that. Plus a guide to game strategy and even a biography of Tolkien together with a reading list.

My guess is that once you have played the game a few times and enjoyed watching the pictures, the main action will take place at campaign level — so it could be said this is more a wargame than an adventure. Nevertheless, War in Middle Earth is the best Tolkien-inspired computer game yet released.

The 16-bit versions have been developed by Synergistic in the USA while the 8-bit versions were developed by Mike Singleton in the UK and feature slightly different gameplay to that described above.

The Amiga version will cost £24.99. C64 tape versions will cost £9.99, while disk versions, which should be available early in the New Year, will cost £19.99.

T.M.

A MAMMOTH COMPILATION OF WORLD BEATERS...

When the golden team take their golden games and add a little bit of golden magic, then there's only one outcome .... a GIANT success. Five giant games squeezed into one giant compilation.

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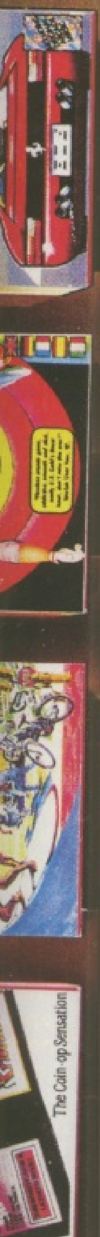


Charts

Chart Chattering Events . . .

There is a pause before the storm . . . before the deluge of the "greatest games the world has ever seen" descends on us. . . . In other words, the end-of-year bonanza in which every single one of the games houses has the number one chart-topping never before equalled megasmash. In the meantime, while you are all holding your breath, life goes on and games are bought and played. Like Barbarian II, Palace's excellent chop 'em up which, with little help from the pneumatic Maria Whittaker (shortly to appear wearing even less for Anco) stays at the Top Spot for the second month running (or slashing!). Also hanging in there with his usual determination is Daley Thompson with Ocean's well-received Olympic Challenge still at Number Two. U.S. Gold's new entry compilation, Gold, Silver and Bronze shoots straight to Three while the mysterious charms of Tracksuit Manager (Does it exist? Goliath never managed to send it in for review no matter how many times we asked!) officially keeps fourth place. Microprose's mighty Red Storm Rising makes its move and enters at Five and another compilation Elite's Fists and Throttles (Could they have found a more unpleasant title?) is a breaker at Six. The everlasting Football Manager II slips a place to Seven.

At the £1.99 — or the £2.99 price too which seems to becoming a regular price point for the likes of KIXX (read U.S. Gold) and Encore (read Elite) and even Code-in-de-nose-Masters whose simulation obsession looks like costing the cheapo buyers a pound more too. Even so Gauntlet from KIXX has hit The Big One, moving up from one place lower last month. Good old Ace from Cascade moves up a place and there are couple of new entries from the successful Alternative and Players stables. End Zone and Joe Blade number II this time.

On the Amiga front, we don't like to say "We told you so!" (We do actually!) but when we said that Mirrorsoft's Rocket Ranger was something very special we obviously had people out there listening to us. (Not you, Mr Amiga User? Shame on you!) Well it exploded its way right through all the other Amiga games around and has launched itself up to the giddy heights of the Chart-topping spot at first try. And if you want to know, we predict that its going to be very, very hard to shift for the next month or three.

GAME TITLE	COMPANY	PRICE	RATING
1 Barbarian II	Palace	£9.95	Mega
2 Daley Thompson's Olympic Challenge	Ocean	£9.95	Mega
3 Gold Silver and Bronze	U.S. Gold	£14.99	Mega*
4 Track Suit Manager	Goliath	£9.95	T.B.A.
5 Red Storm Rising	Microprose	£14.95	Mega*
6 Fists and Throttles	Elite	£12.99	Crisp*
7 Football Manager II	Addictive	£9.99	Crisp
8 Roadblasters	U.S. Gold	£9.99	Crisp
9 Last Ninja II	System 3	£12.95	Mega
10 Cybernoid II	Hewson	£9.95*	Crisp

Budgets

1 Gauntlet	Kixx*
2 Ace	Cascade*
3 End Zone	Alternative
4 Joe Blade II	Players
5 Rally Driver	Alternative

Amiga

1 Rocket Ranger	Mirrorsoft	£29.99*
2 Starglider II	Rainbird	£24.95
3 Battle Chess	Electronic Arts	£24.95*
4 Virus	Rainbird	£24.95
5 Interceptor	Electronic Arts	£24.95

*** NEW ENTRY**

HORGAN'S HINTS

Fed up with all this Christmas business? How many shopping days were left? What would be number one in the record and software charts, what colour socks your auntie buys you, will The Wizard of Oz be on again? Do you give a toss? Fear not, for this month's portion of pokes is guaranteed 100% free of Christmas references, now is that considerate or what?

The Great Escape
Low morale levels can be a real downer, but this pick-me-up from Tim Collins in Co. Leitrim will cheer you up. Load the game and reset the computer before entering:

POKE 17343,165:SYS 271

Attack of the Mutant Camels
David Higginson tells me this poke will "shut 'em up!" (refering to the camels of course). Reset after loading and type:

POKE 7019,0
SYS 4096

Gauntlet (Kixx version)
Andy and Gary Brown have supplied the following hacks.

Reset and type:
POKE 49009,96
SYS 32768

Chubby Gristle
Load, reset and enter:
POKE 3613,173
SYS 2994

Last Mission
Here's a consolation poke for anyone unfortunate enough to have bought the game. Load and reset as usual . . .
POKE 7927,12
SYS 14848

Why not try out these non-poke cheats from Jason Haymer?

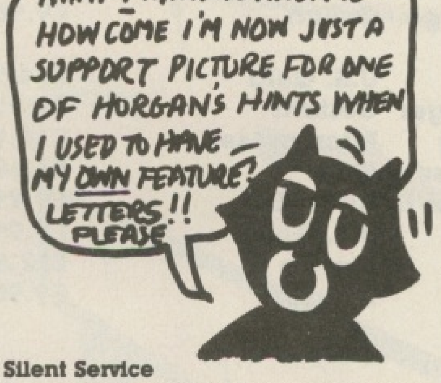
Championship Wrestling
If your opponent pins you, push forward on the joystick and hit the fire button as fast as possible. Not only will your opponent be thrown off but your energy zooms up as well!

Terra Cognita
Fly over the first extra life block, collect it and fly into the time shift. You'll be put back to the beginning. Carry on doing this until you have the maximum nine lives (Jason did include a pathetic joke about a cat here but I'll spare you it).

Ninja
Destroy the Denizens by weakening them with throwing stars and finishing them off with your sword. Kill the Karatekas by throwing stars at them, keeping a safe distance from them. Deal with the Evil Ninjas by using the high kick (don't try anything else).

Star Wars (Parker Bros. Cartridge)
This cheat is imcompatible with Domark's version but for anyone with the Parker Bros. version, type PARKER BROTHERS (including the space in between) for an amusing response.

Alleykat
This cheat does not always work on the dodge 'em races but is great for the others . . .
At the beginning of a race, fly to the right hand side of the screen and extend your wings. Shoot all the obstacles in your path for one lap only before flipping them back and accelerating to full speed for the remainder of the race. Most of the antikat craft should leave you alone (even Katerkiller) but it's advisable to keep shooting just in case.


WHAT I WANT TO KNOW IS – HOW COME I'M NOW JUST A SUPPORT PICTURE FOR ONE OF HORGAN'S HINTS WHEN I USED TO HAVE MY OWN FEATURE? LETTERS!! PLEASE

Silent Service
To get a fresh set of torpedoes and shells at any time in the game, press shift and run/stop to break into it and then type RUN.

Wizard's Lair
Here are the codes for this recently re-released game of Atic Atac in the jungle.
CAIVE HAWLO
CRYPT DUNGN
VAULT LIAYR
LYONS

Goonies and Zorro
Jason Haymer's remedy for any C128 users unable to load either of these two games is to try loading them with CAPS LOCK depressed.

Ollies Follies
The code for level 19 is ZOOOM

Rock 'n' Wrestle
This method allows you to out-grapple any of the opponents: dash to the far right corner of the ring and turn to face your opponent. When he approaches you, kick him in the stomach until his energy is fully depleted. Now move around in front of him and when he faces you, grab him and give him a piledriver. Then jump on him and pin him down until he's out for the count. You may need to try this twice on some of the harder characters.

Mega Apocalypse
More Mega Apocalypse pokes? This one from David Cox is for a "mighty mega meaty apocalypse". Load and reset the game before entering:
POKE 53271,255
POKE 53277,255
SYS 22562

Grand Prix Simulator
David has been using the Action Replay cartridge for his pokes and has consequently not unearthed a restart address, so I'm afraid this one's for cartridge users only.

POKE 3418,171 (continuation of the music during level two and onwards, and during speech)
POKE 16452,171 (some visibility under the bridges)
POKE 4221,X (substitute X for a number between 250 and 255 for different music)

Vegas Jackpot
For an extra ten quid every time try out this poke (again only for those with an auto-restart cartridge).
POKE 20114,173

Ice Palace
Fancy invunerability from all the evil beings and flying swords? Of course you do, so reset the game and poke it like so:
POKE 12755,173
POKE 13416,173
Sorry, no restart address again!

That's your lot for this month,

Tony Horgan
HORGAN'S HINTS
CCI
40 BOWLING GREEN LANE
LONDON EC1R ONE

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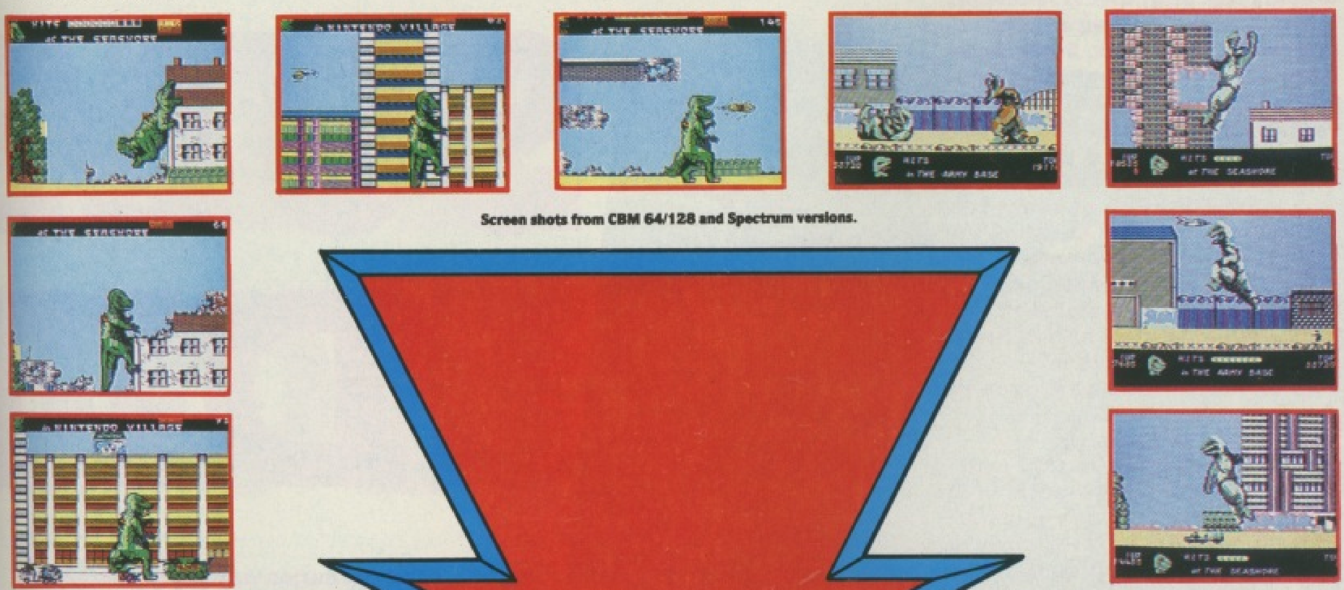
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Epyx THE GA SUMM EDIT

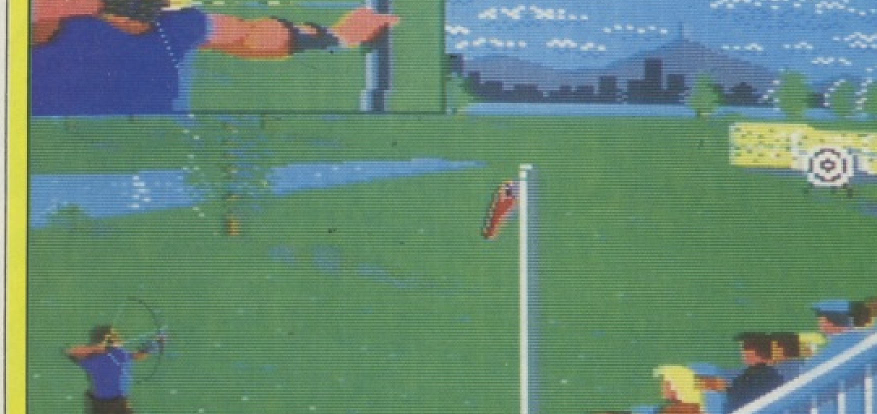
MEGA

Contrary to what you may think, there is still life in the old Track and Field theme, as Epyx have proven with yet another excellent multi-player sports simulation.

Unlike some of their rivals, Epyx have not cut corners with the number of events included in the game. There are eight in all: archery, cycling, diving, hammer throw, hurdles, pole vault, rings and uneven parallel bars. Some have been done before, but the new versions are all different enough for Summer Edition to be a whole new game in itself.

The essential ingredient in every one of the Epyx Games series is the multi-player feature. As usual, up to eight players can compete in all or a selection of the events, each representing one of eighteen countries. A practice option has not been forgotten, handy for beginners and messing around with your favourite events.

Tackling the games in alphabetical order, we start with Archery. From the view-point in the grandstand you can see yourself facing a target 90 metres away. A window in the top left corner of the screen provides a close up view allowing you to set the precise tension of the bow. Paying close attention to the wind sock, your next task is to line up the sight of the bow with the target before releasing the arrow. The wind speed and direction is a little too irratic, emphasising the luck factor, but in general is very realistic.



Cycling returns to the old waggle technique to simulate this 1000 metre race. A couple of windows on the left display the 3D views from behind each racer, while a plan of the circuit to the right keeps track of the players' positions. Up and down build speed, left and right steer the bike.

The solid 3D views work convincingly enough, again givin gthe game a touch more realism than the usual horizontally-scrolling format.

Another of the events we have seen before is the diving. Board tension can be adjusted for various heights of dive. Select a forward or backward dive and the competitor walks to the end of the board and leaps off. Combinations of joystick and firebutton are used to send the diver spinning and rolling through the air, entering the water with the minimum splash.

> *"Throw the hammer too early or late and it goes no further than the surrounding fence. Hang on to it and you are launched into the air, still clinging to the hammer!"*

Humour always plays a big part in these games and is most prominent in the hammer throw. Not only that, it has some of the most convincing animation ever seen. A large character limbers up in the cage. Moving the stick through all eight positions in an anti-clockwise motion, speed is built up in preparation for the revolve stage. Keep circling the stick throughout the second phase until you reach the perfect release point. Press the button and kiss goodbye to the hammer as you watch it sail into the distance. Throw the hammer to early or late and it goes no further than the surrounding fence. Hang on to it and you are launched into the air, still clinging to the hammer!

YX

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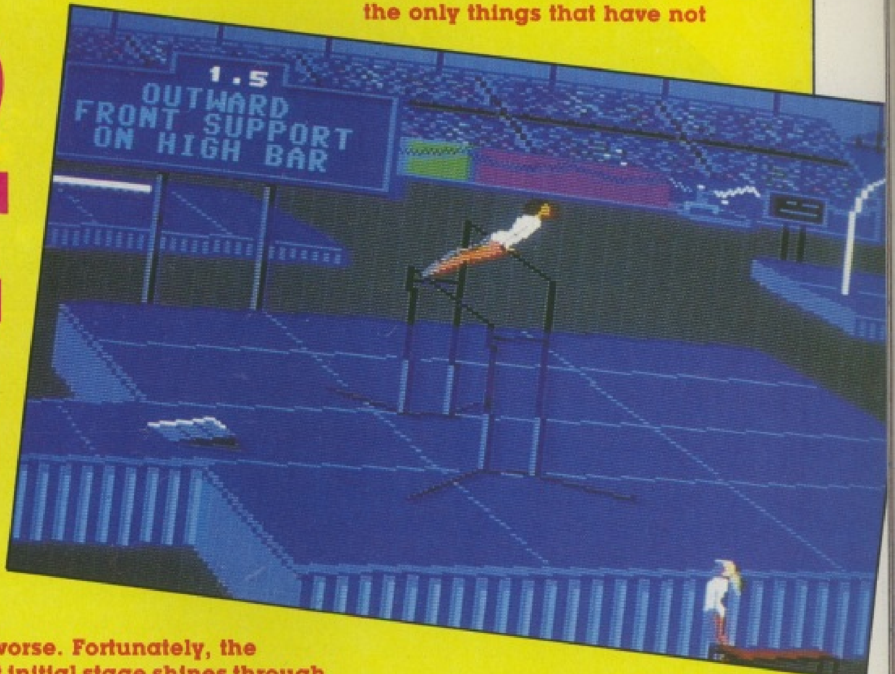
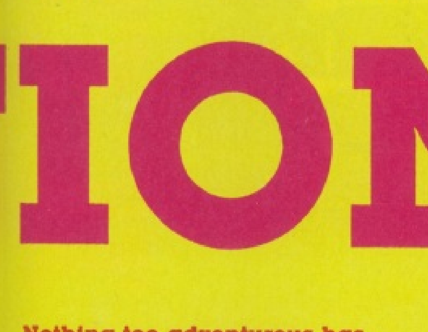


Nothing too adventurous has been attempted with the hurdles, raced across a horizontally-scrolling track. Hold the fire button the blocks and release it as soon as you hear the starter's gun. Waggle the stick for speed and use the button to clear the hurdles; the longer you hold the button, the better chance you have of avoiding a fall. To balance this out, longer jumps tire the runner more than usual.



One of the strangest, but most effective new twists is in the run-up to the pole vault. The view point is situated above and in front of the athlete as he approaches the bar. Moving the stick left and right in time with his feet controls the speed before the view switches to a more conventional 2D side-on angle. This is surprisingly bland and blocky with wobbly scrolling to make things worse. Fortunately, the brilliant initial stage shines through and covers up this oversight.

An event you would not expect to find is the rings. Control of your gymnast is accomplished by continually waggling the stick either up and down or from side to side. However, there is more to it than frantic stick waggling. A rather bewildering diagram explains which move follows on from which so you can plan out your routine in advance.

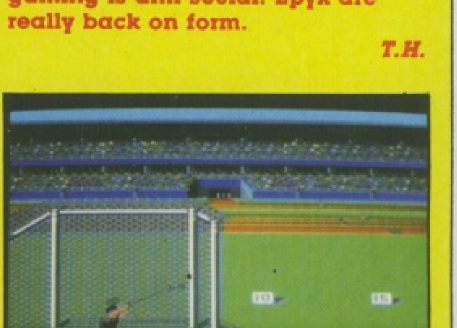
"In places, the gymnastic events and hammer throw in particular, the graphics are some of the most realistic I have ever seen."

Lastly there is the uneven parallel bars. A similar diagram to that of the rings (but even more complex) outlines all the possible sequences of moves. Understandably, the sprite animation is not totally smooth, but the accuracy of the graphics makes this amazingly realistic to watch.

It is reassuring to see Epyx have not lost their unique talents, a fear induced by the disappointment of The Games: Winter Edition. In places, the gymnastic events and hammer throw in particular, the graphics are some of the most realistic I have ever seen. Not only that, there is not a hint of blockiness in any of the major sprites.

The tunes and sound effects are the only things that have not progressed since the early days. There is something about these games that makes them favourites not only for dedicated gamers, but novices as well. Round up a few friends, gamers or otherwise, and disprove the belief that computer gaming is anti-social. Epyx are really back on form.

T.H.



Graphics: 92%
Sound: 53%
Playability: 88%
Overall: 89%
Rating: MEGA
Price: £9.99 (c)
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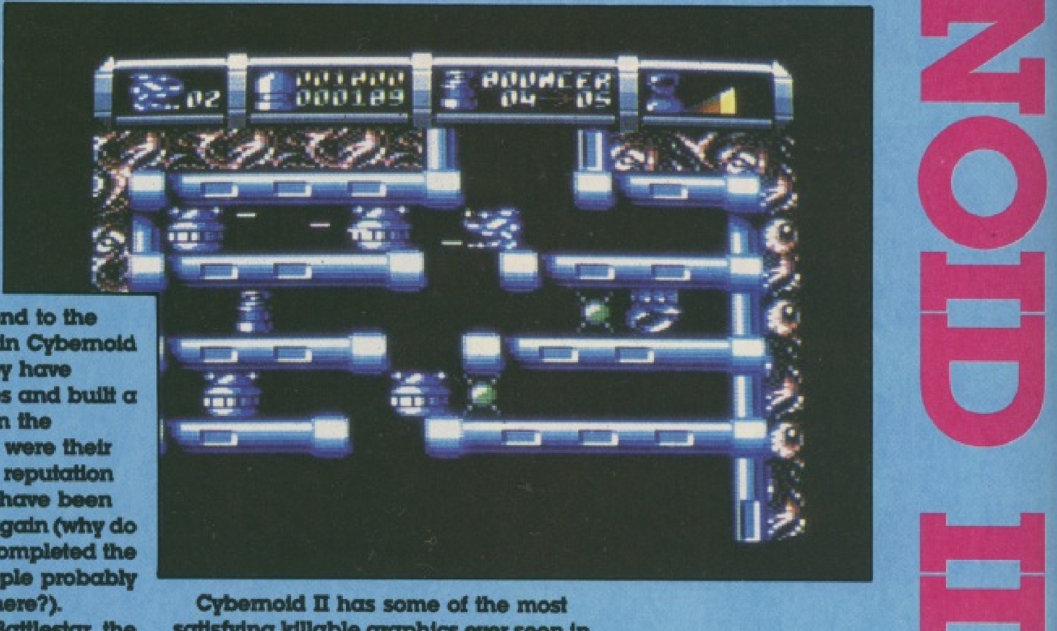
C64

CRISP

Hewson

CYBERNOID II



Thought you put an end to the mean space pirates in Cybernoid I? No such luck! They have regenerated their resources and built a new Battlestar. Once again the Federation storage depots were their target, and going on your reputation from the first mission you have been voted the man for the job again (why do they always assume you completed the first game when most people probably only got about half way there?).

In the rebuilding of the Battlestar, the enemy have developed some new defences as well as making the whole thing bigger. As before, the Battlestar is split into small sections, each one taking up a screen. Obstacles come in two main forms: your standard electrified aliens and more heavily armoured defences bolted onto walls. The alien pirates are laden with stolen goods stored in indestructable canisters. Fortunately for you, that means any cargos can be picked up from destroyed aliens and added to your own ship.

What sets Cybernoid II apart from its rivals is its abundance of giant destructable defences. These are immune to laser shots, but explode violently when on the receiving end of a bomb or missile. Your ship is fitted out with an array of weapons with which to fight the alien slime: bombs, mines, bouncing bombs, smarts, seekers and tracers that see to 80% of alien attack. The remaining 20% are robots that follow predictable paths that can often be anticipated and evaded. Some however are unavoidable, so your shields are called upon for protection. Shields are the most limited of all the add-ons and careful planning is needed as only one can be carried at a time.

Every screen has its own problems. Initially they concern dodging the aliens and getting out alive but the furthr you get into the game, the more puzzling the screen designs become, demanding a bit of thought as well as lighining reflexes.

Cybernoid II has some of the most satisfying killable graphics ever seen in a computer game. Unfortunately, the graphics are about the only noticable difference between this and the original Cybernoid. A common critisism of sequels is their absence of new ideas, one that I put to Cybernoid II as its main drawback. Its difficulty seems a bit on the tough side to begin wtih, but stick with it and you do find yourself consistently getting that little bit further with each game.

A choice of sound effects would have given the game a wider appeal; the music is very pleasant but in a game such as this, effects are often far more appropriate. Still, Cybernoid II bears all the trademarks of a Hewson zapper: slick programming, spectacular graphics and demanding gameplay. If you expected a substantial progression from Cybernoid I you could be disappointed with the sequel. If on the other hand you bought the original and hunger for a second helping, this is definitely the game for you.

T.H.

Graphics: 92%
Sound: 75%
Playability: 79%
Overall: 77%
Rating: CRISP
Price: £9.99 (c)
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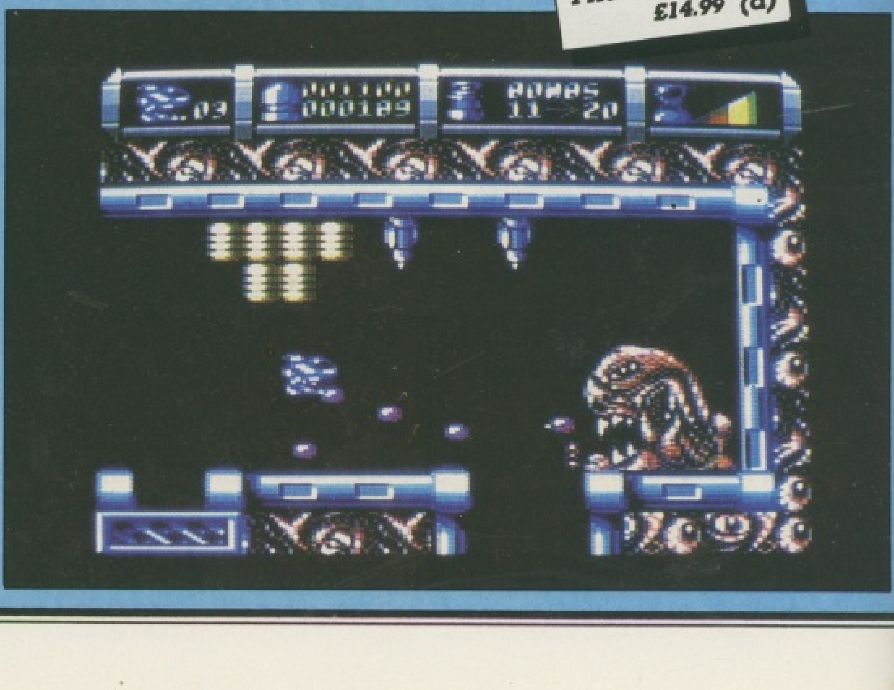


C64

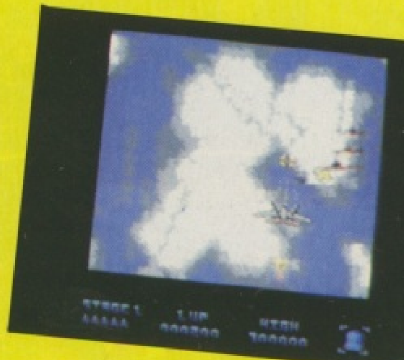
DODGY

TYPHOON

Imagine

While most software houses are trying to convince us that their products are the fastest, biggest, most exhilerating games on Earth, Imagine are content to describe Typhoon as a mere simulation of such a game. As with all simulations, 100% accuacy is never possible, and in the case of Typhoon they do not seem to have got near 100% of compulsion and excitement.

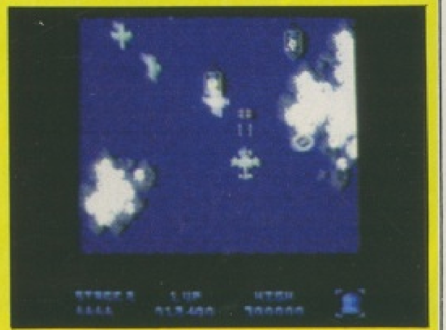
Mechanoid invaders have arried and plan to take over the world. You begin your mission to destroy them high above the sea in an F-14 fighter plane. Wasting no time you enter a vertical dive through the clouds with your sights set on the enemy carrier below. Groups of fighter planes shoot through the clouds in the same tired old formations seen so many times before. Two weapons are activated by the fire button: standard short-range cannons and bombs released from beneath the plane. The effect of zooming through the clouds works fairly well but could do with a bit more speed.



Stage one is pretty boring stuff, the only thing of interest is the 3D view. All the enemy planes are identical and strangely yours banks in the wrong direction when moving from side to side. Soon enough you get to the carrier. Blow it up and the second stage loads in.

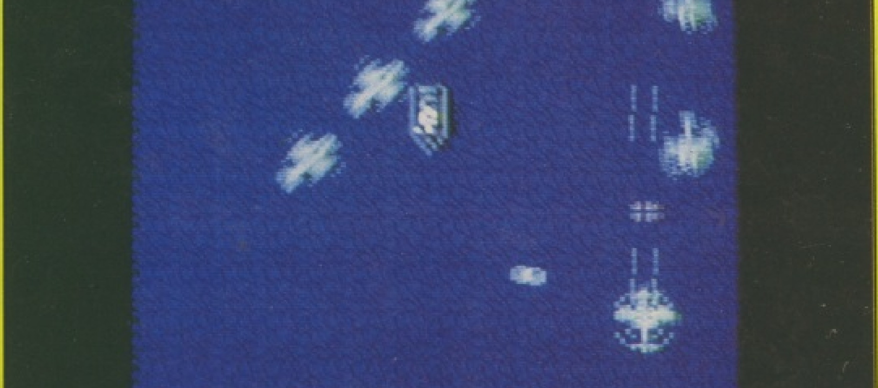
Your F-14 from the first part has now transformed into a helicopter for stage two. Instead of improving, Typhoon takes a step backward here. Now your enemies come at you from a vertically scrolling seascape. The blocky choppers and planes move around the screen totally unrealistically above equally poorly defined backgrounds. Extra weapons can be picked up to give the action a slight boost.

I am surprised Imagine bothered to convert this little-known coin-op when it does not even have any decent gameplay to compensate for its obscurity. It looks as if the programmers were turned off by the original game going by the conversion's drab title screen and make-shift graphics. The music is just a rearrangement of often-used voices, the alternative to which is a selection of unoriginal sound effects.



In both sections the screen has been cut down to a square shape, reducing the playing area unnecessarily. Expecting people to shell out a tenner and be satisfied with this is extremely optimistic. We do not want any more sub-standard vertically scrolling shoot 'em ups, please!

T.H.



Graphics: 42%
Sound: 65%
Playability: 38%
Overall: 39%
Rating: DODGY
Price: £9.99 (c)
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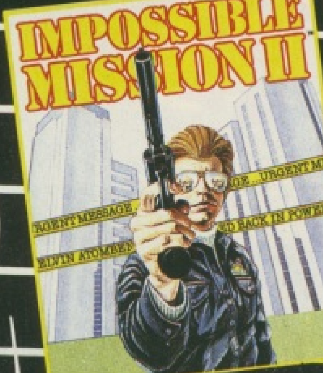
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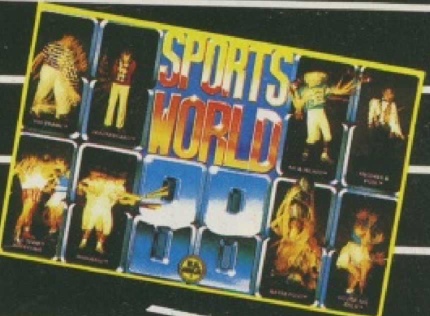
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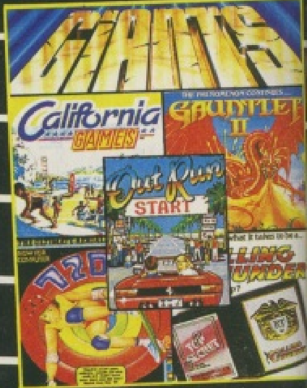
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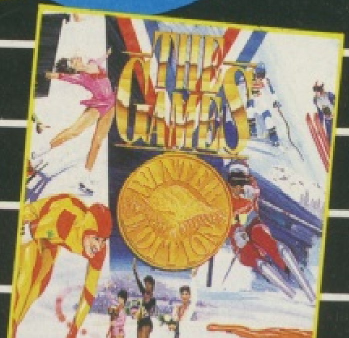
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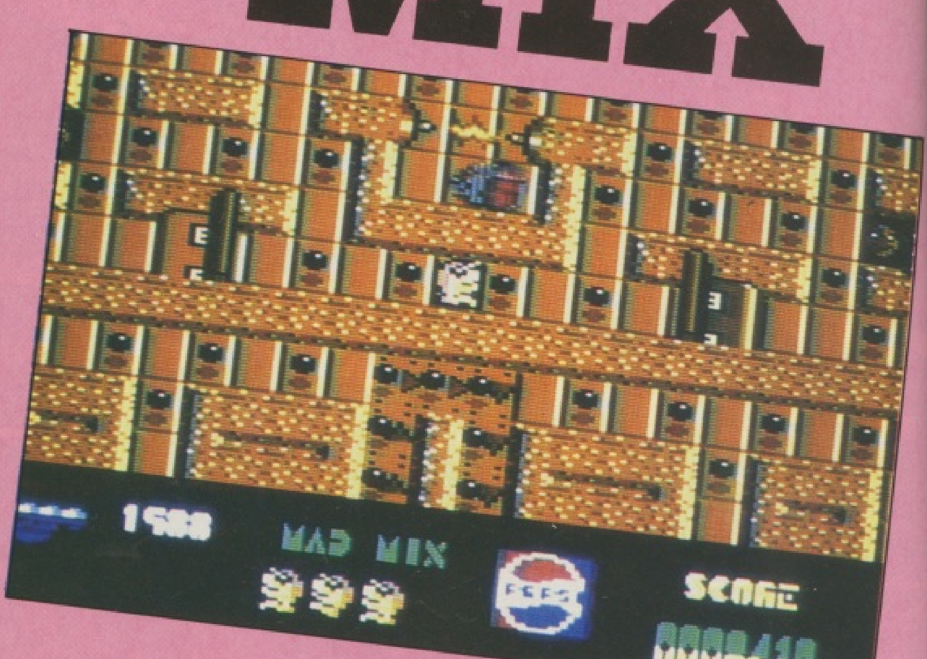


Why do software houses insist on constantly re-hasing old ideas and dressing them up as something new? If someone decides to write a Breakout, Space Invaders or Pacman clone, at least they should have the honesty to make it clear to the buyer what the game is really about. Pacmania for example has a picture of Pac leaping around a ghost-filled maze on its cover, which together with the name make it obvious that it's a Pacman progression. That's fine, no-one is being trickled into thinking they are getting something more than they really are. The problem arises when a game like Mad Mix comes along and attempts to cover up the fact that it's just a plain Pacman clone.

Pac has been replaced by a similar blob going by the name of Mad. A feeble excuse for a storyline tells of how Pepsivillage has been overrun by ghosts (notice the subtle Pepsi plug there?) and you, Pepsiman (there goes another) are the only villager up to the job of de-spooking the place.

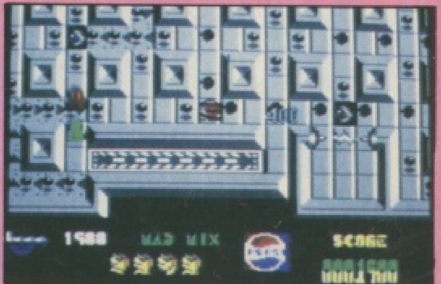
> *"Powerpills are found in certain places which turn Pepsiman into Angry Pepsiman for a short while, allowing him to eat the ghosts"*

Of course, this entails walking round a maze, eating all the dots and for most of the time, steering clear of the ghosts. Powerpills are found in certain places which turn Pepsiman into Angry Pepsiman for a short while, allowing him to eat the ghosts. A similar pill turns him into a Pepspipotamus, giving him the chance to stomp all over the ghosts, but until its effect wears off, no more dots can be eaten. Tanks and spaceships can be boarded and moved along short fixed rails while you take pot shots at the ghosts.

One-way doors and conveyor belt effects have been included to relieve a little of the tedium brought about by the basic maze designs. Clearing one maze takes you onto the next which usually has a marginal increase in complexity and a new colour system.

I can see no reason why anyone should choose Mad Mix in preference to Grandslam's Pacmania. Then again, neither fill me with excitement; I had enough of Pacman in my distant ZX81 and Spectrum owning days when almost every other game released had a title like "Maze Guzzler" or "Specman". There will be those who feel differently, but even so, Mad Mix is far from the ideal Pac variant.

T.H.



Graphics: 36%
Sound: 44%
Playability: 31%
Overall: 35%
Rating: DODGY
Price: £7.99 (c)
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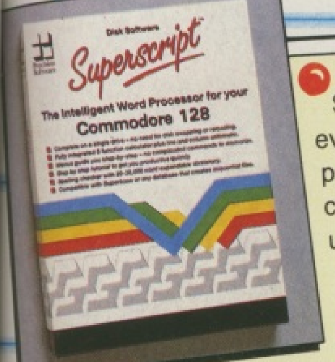
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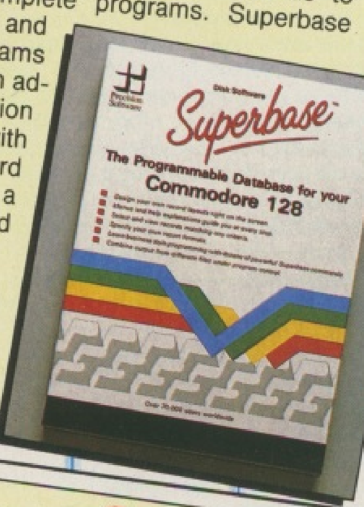
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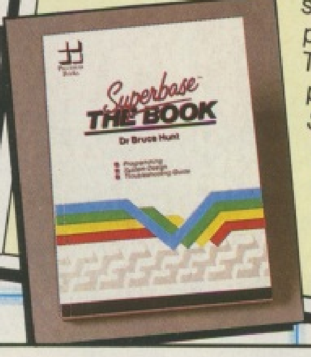
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CCI

DEATH

Here is my problem...

I've been given a task by the ninth Emporer of the Kingdom of Kodan; to wipe out the Evil that is devastating his once-peaceful lands. I got my party of brave warriors together and set out with bold resolution, secure in the knowledge that I, and my friends, would succeed where all others had failed.

We quickly discovered, and entered, the town of Kawa where we heard the first whisperings about "the seven words" that we had to find. Our world is huge. Where will we find "the words"? How will we cross the oceans? But, more immediately, how am I going to survive? Of my original party of five, only two of us remain!

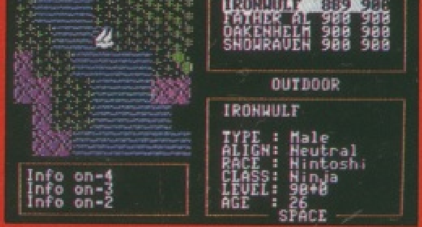
Three died in our first fight, with a band of marauding brigands. Now only Dove remains with me, and she is slowly dying from a venomous snake bite, her strength failing her even as I watch! Although we are now hidden in the ruins at Wakiza I am sure it will be only a matter of time before those grotesque skeletons discover our trail again. I wish now that I had chosen my party more wisely...

Still, I suppose I could always start again!!

Every now and then, a game comes along that takes you completely by surprise.

In this case it is one called "DEATHLORD", written by Al Escudero and David Wong and released by Electronic Arts. The surprise came the day AFTER I first looked at it...

I was travelling home on that well-known sardine-packing factory, thinking about different ways to form a party of adventures that might be more successful. What skills I would give them. Whether to have more magicians, or fighters. How many to have in the party. For me that WAS a surprise as no "Adventure Game" had ever set me thinking THAT much before!!



```
THE AVENGERS

VALKYRIE  900 900
IRONWULF  889 900
FATHER AL 900 900
OAKENHELM 900 900
SNOWRAVEN 900 900

OUTDOOR

IRONWULF

TYPE : Male
ALIGN: Neutral
RACE : Hintoshi
CLASS: Ninja
LEVEL: 90+0
AGE  : 26
SPACE

Info on-4
Info on-3
Info on-2
```

The basic scenario is this: Lorn was once a nice peaceful place until an outcast wizard decides to change things. Now it knows only evil. The Kingdom of Kodan's second city has been destroyed and the ninth Emperor has had enough! And guess who has the job of sorting it all out? Your task in Deathlord is to identify and defeat the source of evil. To do this, you will need to collect clues and articles. You will also have to gather together a party of fellow adventurers, and gain strength and knowledge to help you in your quest.

Assembling an effective party of characters is essential if you want to be successful. Each party can have between one and six members. You can form a number of different parties and save them to disk. Each member of the party is chosen from an amazing array of characteristics and attributes, including race, class, alignment and sex.

There are eight classes of race to choose from, each class having its own unique style: TOSHIs are physically weak, but they are intelligent and have long lives, whilst TROLLs are "homely humanoids" that are "strong but fairly slow-witted for spell casting".

All characters have seven mental and physical attributes which range in value from three to twenty-one, strength, constitution, size, intelligence, dexterity, charisma and power.

Sixteen different CLASSES of character are available to you, from Anasatsusha to Yakuza. Once again, each different class of adventurer has different skills and abilities, wears differing amounts of armour and is able to use a variety of weapons and/or magic.

For example, the SENSHI is "the ultimate mercenary", who can "wear any armour and use any weapon", whilst the SHIZEN will draw on nature to cast spells but, "metal armour cuts their casting power, so they usually don leather armour".

Other factors include the number and type of weapons, how many hit points and the amount of armour for each class. Plus, whether a particular class is actually available in the race that you have chosen, (eg. Gnomes cannot be Samurai), and whether each member will benefit the others. A mix of fighters and magicians is recommended.

As you can probably tell, the setting-up of your party can be

HLORD

Electronic Arts

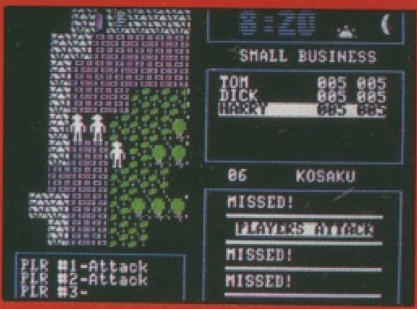
quite a difficult and time-consuming business, so there is a ready-to-go team provided to get you started. My first happy band lasted about an hour before I'd managed to get them all killed off!!

Once your party is complete, you are ready to begin your quest.

The two writers of Deathlord obviously spent a huge amount of time thinking through how the characters should be prepared. They apparently spent and equal amount of time on the actual play area. It is VAST! There are SIXTEEN levels of Dungeon with "acid pits, fire, invisible, doors, magic curtins" and special crystals to be found. And if that isn't enough, there are a few monsters to be faced, 128 different kinds!!

During play, the screen is split into five distinct areas, the largest being a map of your local area. The others are "action" and "re-action" windows, player information and time of day/night. All commands are entered with single key-presses and the program assumes that the party leader is performing the action unless you indicate otherwise.

Other than movement commands, (N,S,E,W), most others require a second input for clarification. For example, if you wish to "get" an item you will press the letter "G", then the direction you wish to "get" from. There are over forty different commands in total and they seem to account for most things, including talking, searching, buying and selling, and the all-important fighting (with both magic and weapons). A very helpful feature has been included that allows you to define up to four "macros". A macro is a string of commands that can be executed by a single key stroke and can be invaluable if you get involved in heavy fighting, when you won't have any time to waste. When the fighting starts, if you aren't ready, you don't last long!!



```
8:20
SMALL BUSINESS
TOM          005 005
DICK         005 005
HARRY        005 005
06      KOSAKU
MISSED!
PLAYERS ATTACK
MISSED!
MISSED!
PLR #1-Attack
PLR #2-Attack
PLR #3-
```

The map display uses icons to show your position and any other presence nearby. The backgrounds are fairly simple and depict forests, swamps, oceans, towns etc.. Although the display is fairly "basic", I found that it did not detract from the game at all. If anything, it keeps it all obvious and uncluttered.

Deathlord is supplied on two disks and the first thing you have to do, before playing, is to use two more blank ones to create the scenario/character disks that the game requires. The sample copy I received was packaged in a card folder. I hope that Electronic Arts re-package it into their usual "box", if only so that dealers are more likely to turn it face-out on their shelves to let people see the Dave McMacken picture on the front!!

It seems that, at last, software companies have caught on to the fact that there is a very great interest in this type of "role-playing" game. The next few months should see the release of many more of them.

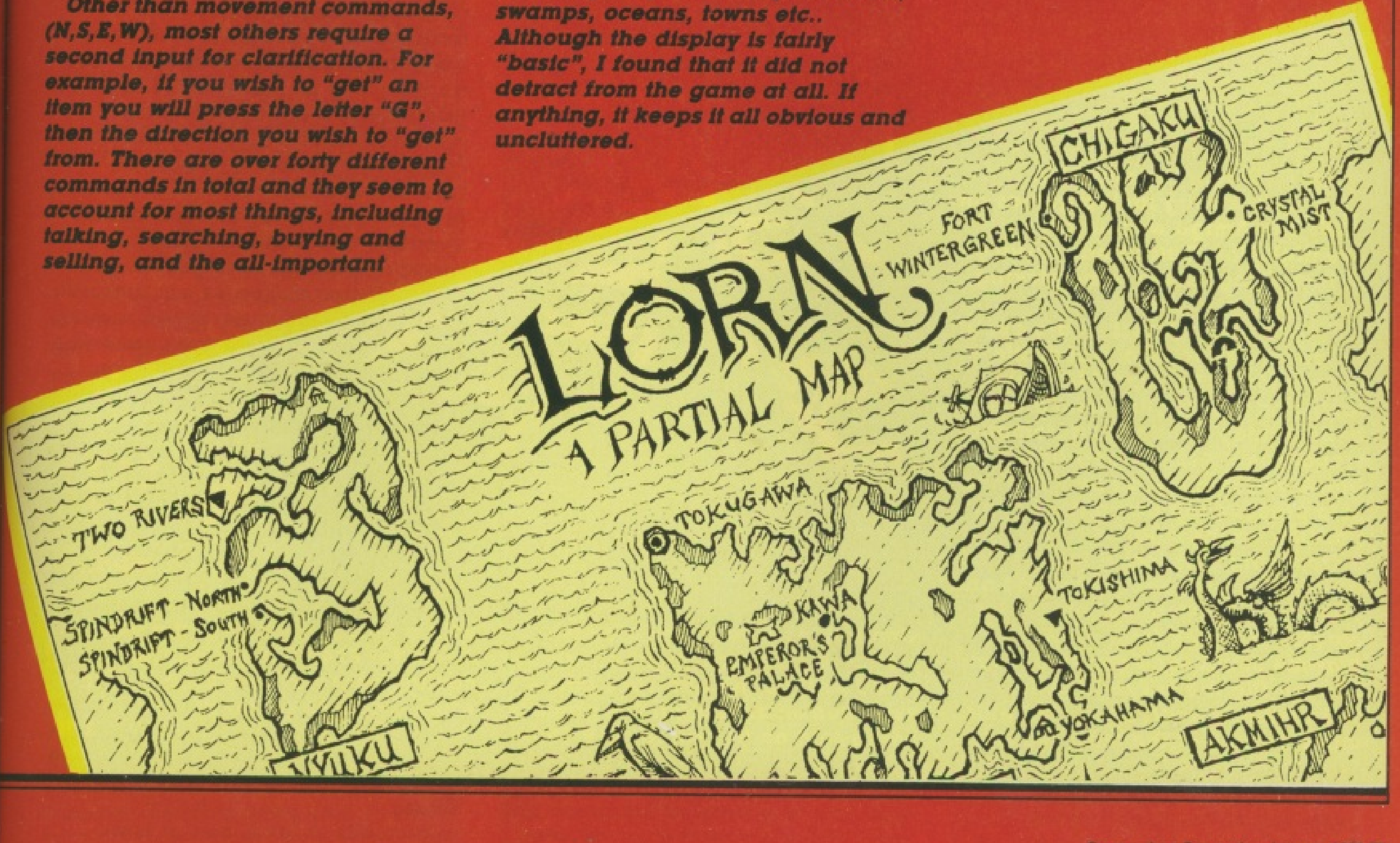
As for Deathlord, it will not appeal to everybody and its complexity may well put a few people off. But if you fancy a bit of "sword & sorcery" and a game that will keep you engrossed for many hours, then this comes highly recommended.

Right, now where can I find a magician who will heal Dove for me?

PS. If you would like to know more about "role-playing" in general, check out our sister publication the new "Independent Fantasy Roleplaying Magazine" called GM.

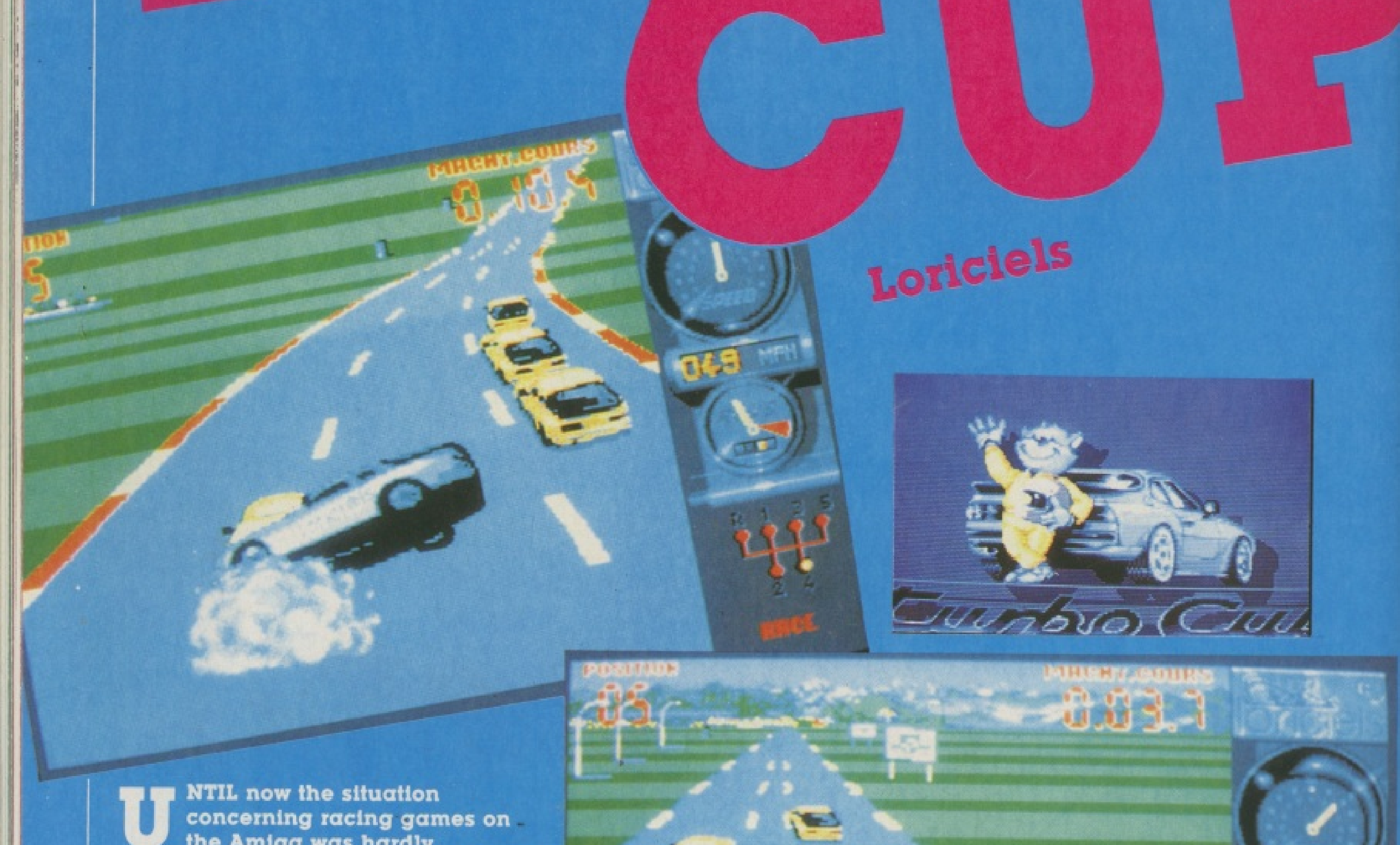
N.S.

PERSONAL RATING 9



TURBO CUP

Loriciels



UNTIL now the situation concerning racing games on the Amiga was hardly eventful. Now Outrun has surfaced at last, things seem to be picking up, and it gets better . . .

France-based Loriciels are about to launch Turbo Cup, a realistic simulation of Porsche 944 Turbo racing on four circuits from aroud la belle France. Choice of automatic, standard or realistic gearboxes break you into the game while the solo practice lap determines your position on the grid.

Opposing cars jossle for position as they burn rubber on the grid and often make rash decisions, so be careful! A knock from a rival Porsche could send you into a spin or even flip the car right over. Grandstands, road signs and hills make for one of the most realistic simulations outside the arcades.

Superb graphics round off what could well be the best race game ever seen on an Amiga. The game is being sold on its own for £19.95 or with a quality replica of the 944 Turbo for £24.95. Look out for it coming your way very soon . . . and when it comes, go for it!

T.H.

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C64

CRISP

PACMANIA

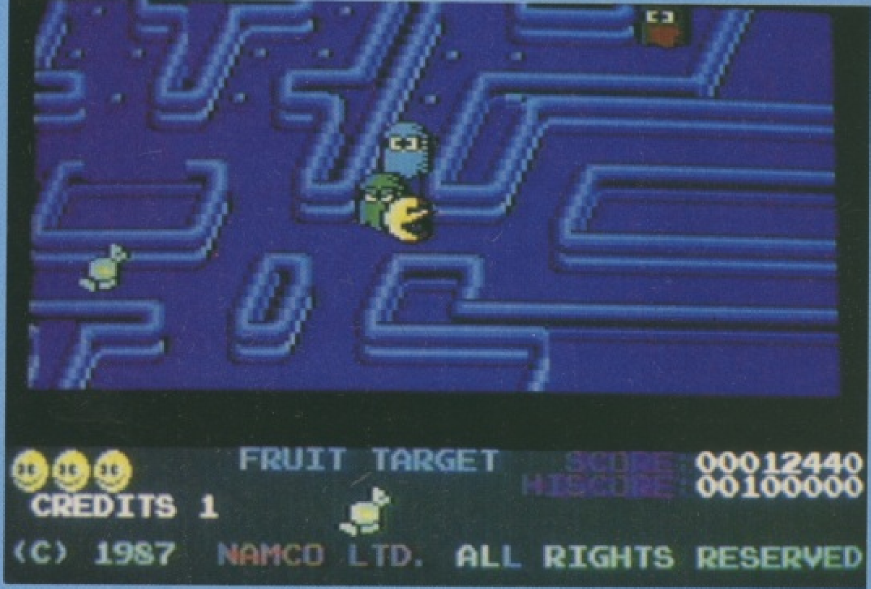
Grandslam

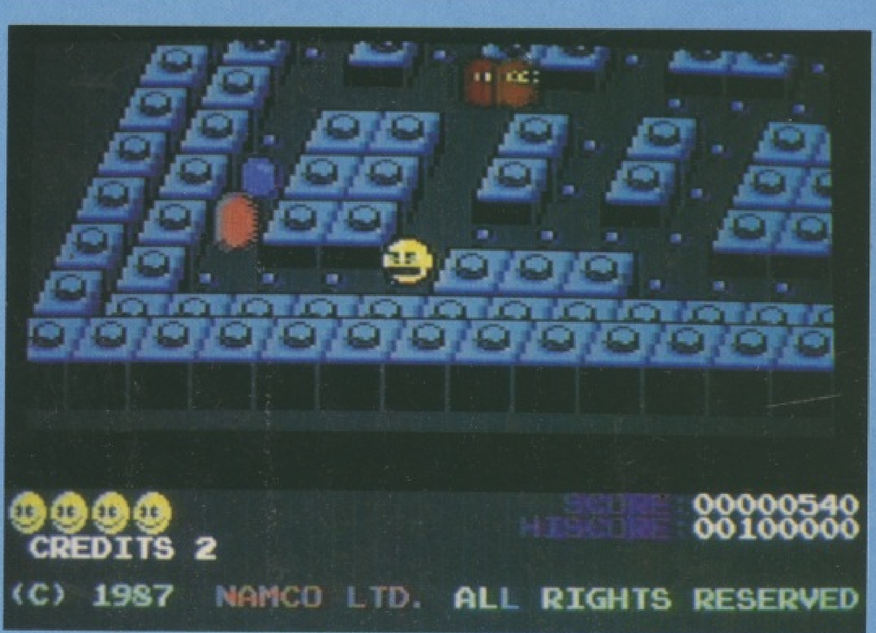
PAC's days of happy family life in the fairy tale world of Pacland are over. No more does he leap and bound through the villages and fields of that green and pleasant land. No, he thought he had kicked the habit but when he passed a maze full of those delicious little dots, his old addition returned, as strong as ever. In case you missed it the first time round (or are still hungry from your early days), dot munching is back on the 64 with a vengence.

Pac, together with his trendy acidic looks, has gained a third dimension. Now the mazes are drawn in 3D and everything is bigger and bolder than before, meaning that the backgrounds are too much for a single screen and scroll in four directions. There is a choice of three levels to begin with: Block Town, Pacman's Park and Sandbox Land. It also teases you with the fourth level, Jungly Steps, but this has to be reached through the earlier worlds.

Just as before, the idea is pig down all the dots, avoiding the deadly touch of the ghosts. Powerpills weaken the ghosts giving you some breathing space and the opportunity to eat them for bonus points. Your other defence is your ability to jump over the nasties, though on later levels this is combatted by jumping ghosts! From time to time extras appear under the ghosts' hideout which are collected for extra points, a very short-lived powerpill effect or turbo speed.

In his 64 guise, Pac looks a bit meaner than the wide-eyes beachball in the arcades. The ghosts and mazes are as good as can be expected, with a night-time option that (for seasons unknown) changes the background into Spectrum-style hires mode. All the scrolling is smooth but there is an annoying decrease in speed when moving up the screen. A selection of jolly (annoying) tunes accompany the guzzling.

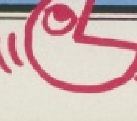


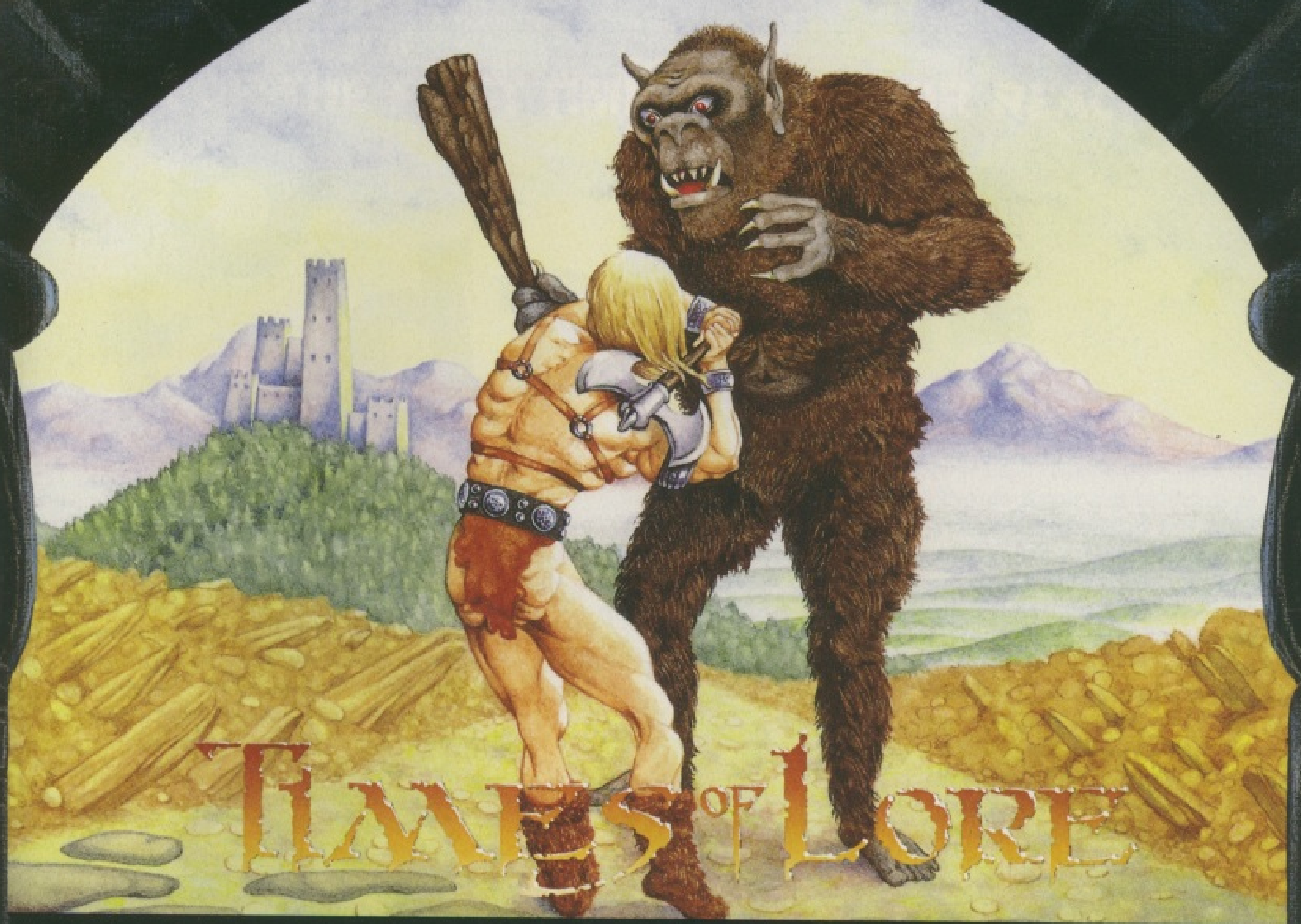


Because of its new features, the turbo pills and different levels, Pacmania will hold out longer than a plain Pacman clone, but if you have had your fill of dots, this will not do much for you. Do we need Pacman in '88? If you think you do then why not give it a go, it's a lot better than US Gold's feeble Mad Mix. If on the other hand you prefer a more up-to-date game for your money look elsewhere. It's as simple as that. (We like it!)

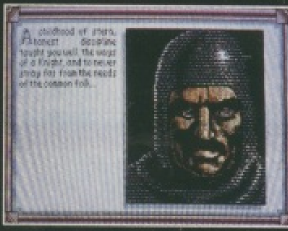
T.H.

Graphics: 58%
Sound: 59%
Playability: 68%
Overall: 65%
Rating: CRISP
Price: £9.95 (cass)



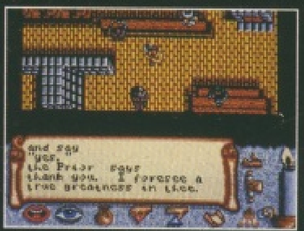


Commodore Amiga



A childhood of stern, honest discipline taught you well the ways of a Knight, and to never stray far from the needs of the common folk...

The Knight one of three character classes.



and say
"yes."
the Prior says
thank you. I foresee a
true greatness in thee.

Atari ST

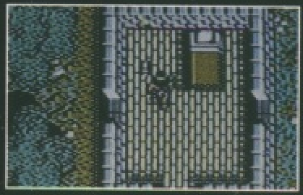
Converse through simple commands and menus.

DISCOVER AN ARCADE ADVENTURE WITH HIDDEN DEPTHS

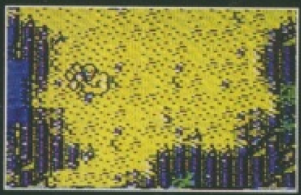
Discover Times Of Lore, Origin's first adventure on cassette. Acclaimed British designer Chris Roberts has taken the best of arcade and adventure – fast and furious combat, stunning graphics and animation, unrelenting danger and challenge – and introduced the depth of a classic fantasy role playing game.

Entirely joystick driven, Times Of Lore continuously tests your combat skills while you gradually become involved in a compelling plot. With 13,000 screen locations, a powerful but easy-to-use menu and icon interface, scores of interactive characters and music by Martin Galway, it ventures further than other arcade adventures.

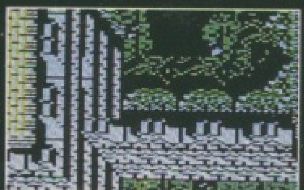
Origin have broken new ground in Times Of Lore. Isn't it time you did too? Available for: C64/128 Cassette £9.95, Disk £14.95, Spectrum 48/128K Cassette £9.95, Spectrum +3 Disk £14.95, Amstrad 464/6128 Cassette £9.95, Disk £14.95, Atari ST £24.95, IBM/PC & Compatibles £24.95, Apple £19.95, Commodore Amiga £24.95.



C64/128



Spectrum



Amstrad

Journey through an immense world of cities, dungeons, and a stunning variety of natural terrain.

ORIGIN

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C64

IFFY

Hotshot

Addictive

Not another Breakout clone? Well not quite, but Hotshot is hardly a revolution in game design. The easiest way to describe it is a cross between Breakout and that old future sport Bounces.

Two players takes part, both of which can be either human or computer controlled. Your character is chosen by the computer from a selection of five which are said to have differing characteristics. They do look different but all play very alike.

Your goal in each screen is not so much as to clear it of bricks but to amass as high a score as possible. Screen one is played against a time limit with a target score taking you onto the bonus and second screens. Depending on your character you will have either a gun or some form of snout that is used to control the ball. Holding the fire button attracts the ball so that you can catch it.

> ***"Once you have the ball you can aim and shoot it back up, distorting its natural flight path with the gun."***

Deaths occur from holding onto the ball for too long and being hit by it. Do not expect any big explosions or gory deaths, the players just glow and disappear. Each of the five levels vary more than your average Breakout clone and include features such as a pinball-style flippers and mushrooms.

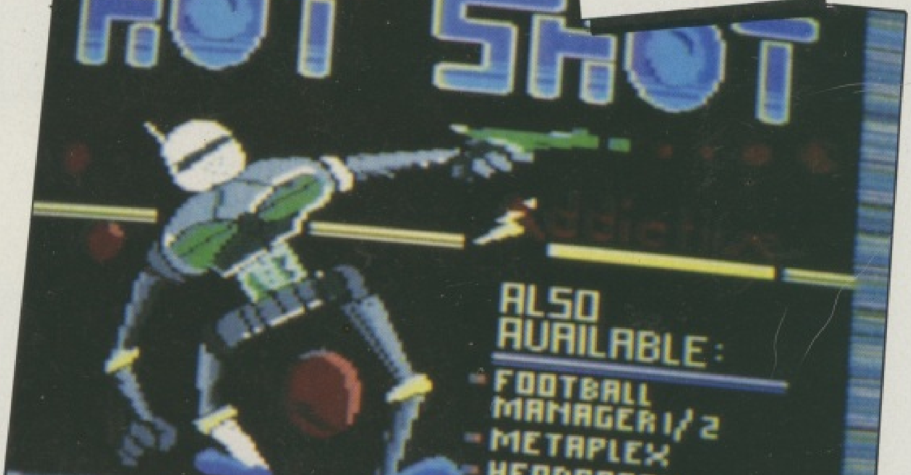
Hotshot's graphics look as if they have come directly off a Spectrum. The sprites are nicely animated but could have had some more colour in them. Sound plays little part, just a blip as the ball hits an obstacle and a very plain title tune.

The two player mode increases its appeal, but it fails to create the level of rivalry and co-operation found in games like Gauntlet and Supersprint. When you tired of the normal game modes you can always select the same joystick for both players and have a two characters under your control at once.

Put beside other bat and ball games, Hotshot looks a bit puny. Everything is neat but there is no excitement to keep you at it. I can see Hotshot doing well as a budget title, though whether the limited entertainment on offer is worth a tenner is another matter.

T.H.

Graphics: 43%
Sound: 30%
Playability: 39%
Overall: 40%
Rating: IFFY
Price: £9.99 (c)
£12.99 (d)



It is daybreak.
discuss objecti
are captured c
briefing you ins
your attack…
The threat of i
combat you ta
master in all fi
interdictor stri
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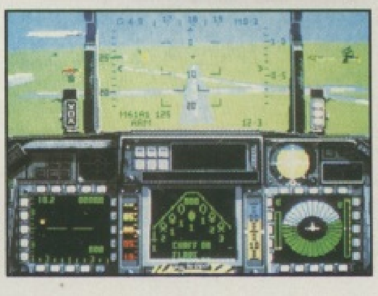
Atari ST screen.

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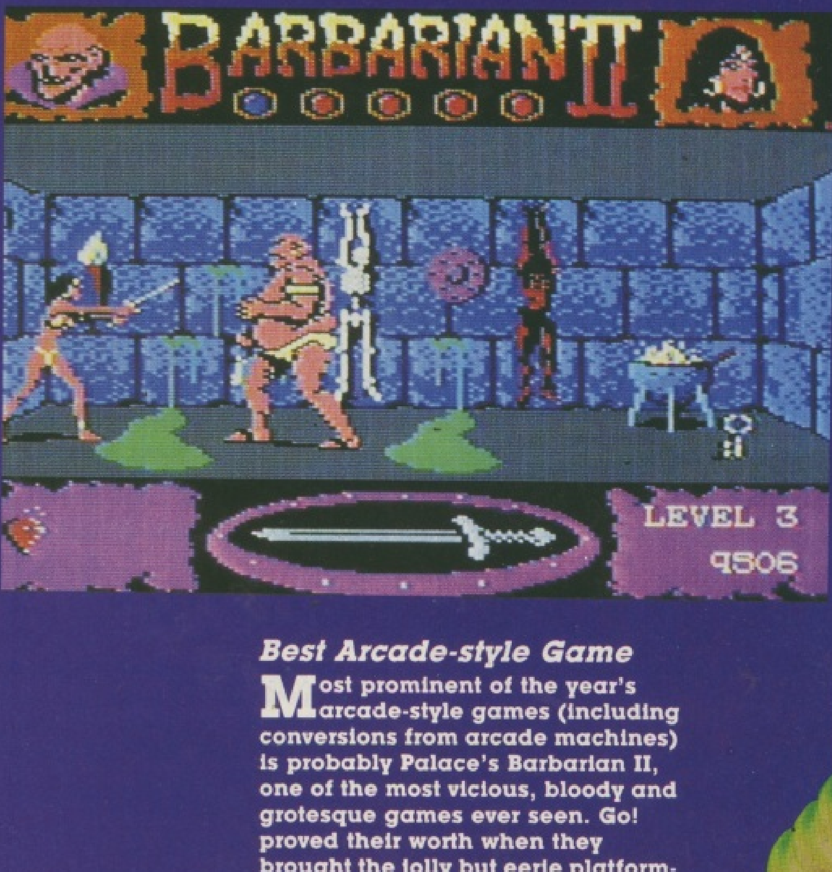
As another year sails gloriously into the history books, once more a much-sought-after CCI Oskar comes steaming up for grabs. The winners of these golden statuettes, awarded each year to the highest achievers in the world of Commodore computing, will not be known until the end of the year, but to whet your appetite here are some of the hottest entertainment contenders for the megastar like. . .

'88 – THE



Best Arcade-style Game

Most prominent of the year's arcade-style games (including conversions from arcade machines) is probably Palace's Barbarian II, one of the most vicious, bloody and grotesque games ever seen. Go! proved their worth when they brought the jolly but eerie platform-based playability of Bionic Commandos to 64 gamers. A mention must surely go to Grandslam for their brilliant work in

converting colourful coin-op Pacland.

Xenon, Virus, Sidewinder, Outrun, Sword of Sodan and Pacmania are just a few that have stunned Amiga gamers in '88.

Best Arcade Adventure

Competition is strong here. Although it only features mild adventure elements, Barbarian II is up there again. Another combining beat 'em up, exploration and puzzle solving was The Last Ninja II, but was it just a bit too similar to the first games? An adventure of a totally different kind, Captain Blood with its universe of conversant aliens and great depth has almost everything a space adventurer could wish for on! Martin Ocean's early '88 chart topper Platoon must come strongly into contention.

PLAYER 1
100
HIGH SCORE
10000
TIME
184

MEGASTARS!

Rocket Ranger's exceptional standards in all departments make it a leader of the list, but we mustn't forget the incredibly absorbing Starglider II, Mercenary or Obliterator.

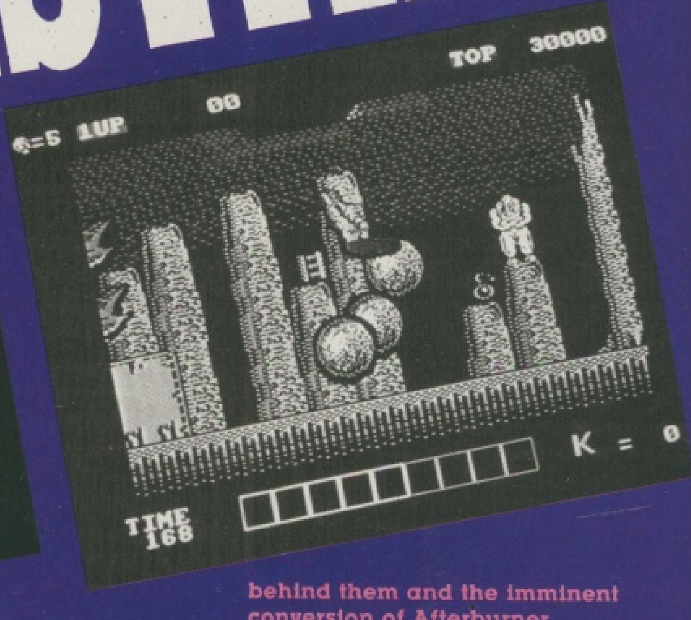
Best Sport Simulation

Football was definitely the software industry's favourite sport this year. Among the many footy games to appear, two have stood out from the rest. Just released ASL's fantastically realistic Emlyn Hughes' International Soccer may look like a clone of Commodore's crumbly classic International Soccer, but take the trouble to play it and you'll be in for a surprise! Sensible Software's unfortunately named Microprose Soccer makes the most of its contrasting bird's eye view (who needs an official World Cup coin-op conversion?). We mustn't forget The Games: Summer Edition and 4th & Inches, two quality sporting releases from the US Gold stable.

For the Amiga, no soccer sims have made the grade so far, but Daley Thompson's Olympic Challenge successfully revived the joystick waggle technique. The category is still wide open to challengers this Christmas.

1st + 10
1st QTR
4:41
Pitts
ALL-PRO
CHAMPS

'88 – THE MEGASTARS!



Best Role Playing Game

RPG's, a breed of game that has for years been overshadowed by conventional adventure games are beginning to emerge as a fast growing alternative to the more traditional methods of goblin bashing. The arrival of the official Advanced Dungeons and Dragons computer game marks this development, but number five in the Ultima series and Times of Lore are putting up a strong challenge.

Bards Tale II and Ultima IV are among the favourites of Amiga role Players.

Most Original Game

Originality is rare property in computer games, a very understanding situation but one from which we would all welcome a change. Even though the space exploration that forms the basis of Captain Blood is nothing new, the communication interface between player and alien is like nothing seen before, translating a number of alien languages into a choice of three European equivalents.

The presentation of Virus is unique, no-one seems to have the expertise needed to clone it! E.A.'s Battle Chess, could provide the competition.

Best Graphics

For its sick, tasteless and utterly delightful mutations and death sequences, Barbarian II gets another mention. Ninja II's accurately detailed and coloured visuals surpassed even those of Ninja I, not an achievement to be sniffed at. Both Cybernoid II and The Games: Summer Edition also have their fair share of graphical treats.

Starglider II's superb visuals are the next best thing to being there for Amiga users, equalled by the spectacular views above San Fransisco generated by Interceptor. Sword of Sodan's very arcade-like giant sprites could just be beaten by the detail and atmosphere of Rocket Ranger's stills and action screens.

Best Programmer (or team)

Cinemaware and The Bitmap Brothers (Xenon and Speedball) have proven their worth, but Argonaut Software are looking good with the success of Starglider II behind them and the imminent conversion of Afterburner promising great things. Teartel have made great job of the conversion of Thunderblade for U.S. gold and Ocean must come into the reckoning for overall quality through the year.

Best Shoot 'em Up

There has been no shortage of alien blasters in the last year. Sadly, one of the best so far, Katakis was withdrawn from the market after Mediagenic got shirty about its similarities to their licensed

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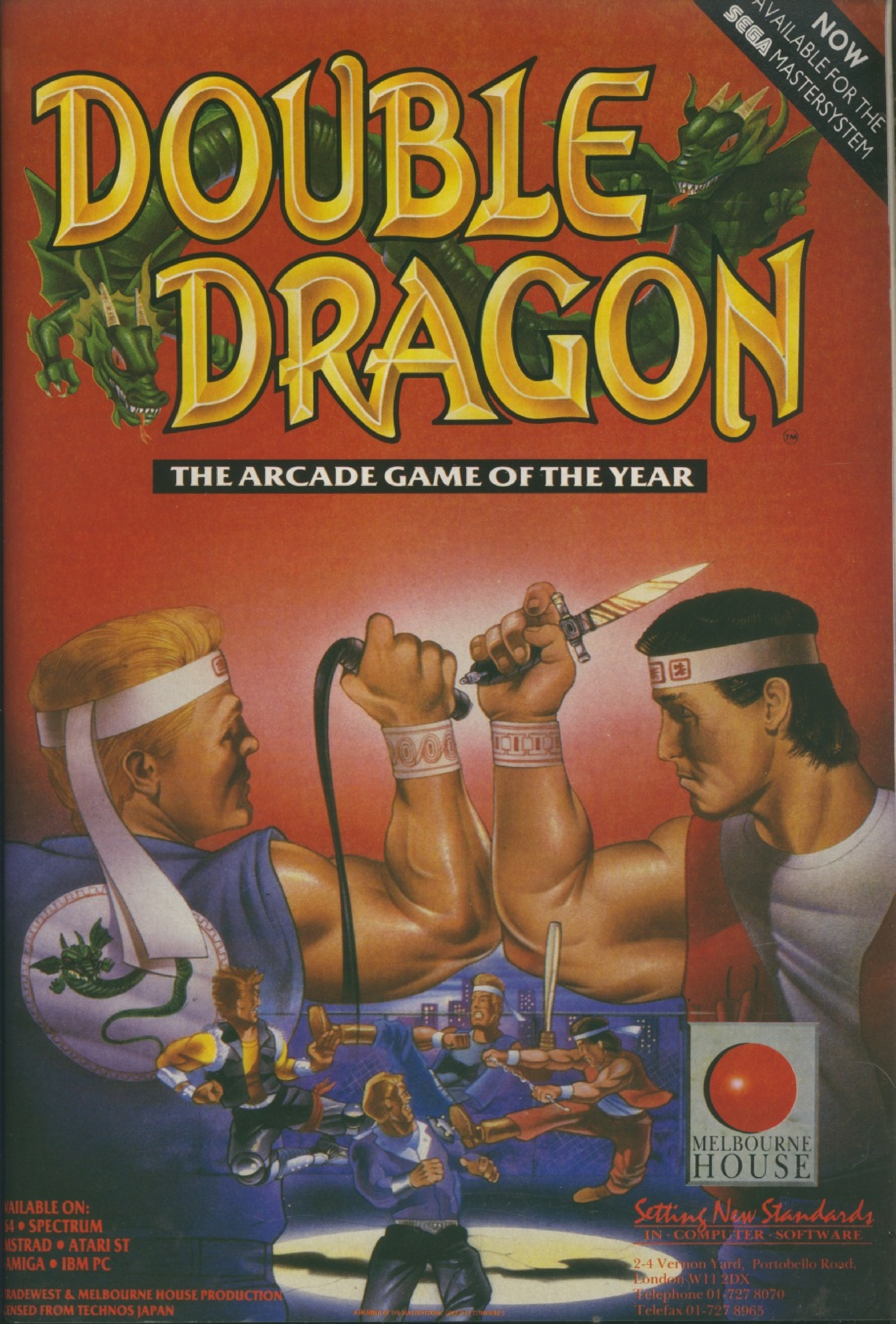
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'88 – THE MEGASTARS!

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POWER

Amiga gamers have had a year of which to be proud of. Simulations have reached to new heights in Interceptor, Menance, Xenon and Sidewinder have more than satisfied shoot 'em upers, and then those hard to catergorise Starglider II and Rocket Ranger amazed us even further.

All this could change before the year is out, so we'll just have to wait and see. Going on the demos we've seen, Thunderblade looks as if it might be the hottest arcade conversion this Christmas by far. Competition is hot though, with Operation Wolf, Afterburner and R-Type all after that number one spot, not to mention the piles of "original" games lining the shelves. Keep it here for the latest developments. . .

R-Type conversion. Cybernoid II, Salamander and Armalyte are all in with a chance of walking away with an Oskar.

Scrolling vertically we have Xenon, Sidewinder and Hybris leading the pack, whilst scrolling across the screen, Menace is giving no ground.

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I=Inventory, J=Jettison.

Adventure

Magnetic Scrolls Corruption must be a leader as is the upcoming 'Middle Earth' from Melbourne House. No doubt Andy Moss will have plenty to choose from.

Worst Game

Gremlin as good as binned their Pink Panther licence when they had the front to release their game of the famous cartoon character. Electric Dreams gave us a Spectrum-style version of the coin-op Karnov that would have disgusted gamers in the early eighties. Perhaps even worse than these is US Gold's demented conversion of Shackled with that special "knocked up in a lunchtime" look about it.

Grandslam took a trip back in time when they released Chubby Gristle, only missing the Jet Set Willy craze by about three years! Then there were Revenge II and Quasimodo that brought Amiga gaming to all-time lows.

Best Game

Once more, Barbarian II is in the running, flanked by Platoon, Bionic Commandos and Captain Blood among others.

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The best of the Compilations

Yes, it's that time of year again when all those games that have been lying around on the shelves gathering dust are bundled together and put into compilations and dumped out on the shops. It's no good if all you get is a bunch of rubbish games, even if they are cheap, so to avoid disappointment we have everso kindly provided this guide to the current batch.

Fists 'n' Throttles (Elite)

Ikari Warriors originated in the arcades as a two-player Commando variant with a couple of joysticks that rotate as well as moving in the usual eight directions. Although these couldn't be carried over to the 64, most of the game is there. The vertically scrolling desert/jungle landscapes are rather plain and the sprites are smaller than in the arcades.

Vertically scrolling kill-everyone games like these are instantly playable and Ikari Warriors is a good example. It's just a shame your mad machine gun spray has to be held back at times to avoid shooting the second player.

Buggy Boy is one of the better car racing games on the 64, partly due to its smooth 3D effect. You are behind the wheel of a dinky little buggy that races against the clock over one of five courses.

These courses are littered with fences and walls to be avoided and flags for bonus points. Logs act as ramps and can send you flying over any obstacle. Tunnels and banks are also included which are very effective. Buggy Boy is not the fastest game around but it makes up for this with very fluid gameplay, making it one of the best games on the compilation.

Enduro Racer is the worst game in the pack by far. It comes from a similar coin-op to Buggy Boy which relys mainly on its speed for thrills. Icon Design who programmed the game made a right pigs ear of the whole thing.

Trees at the roadside move at a pathetically slow rate and jump into the foreground in giant steps. All the traffic has been very poorly defined and the whine of the bike's engine merges with the music just in case you didn't have a headache from the graphics.

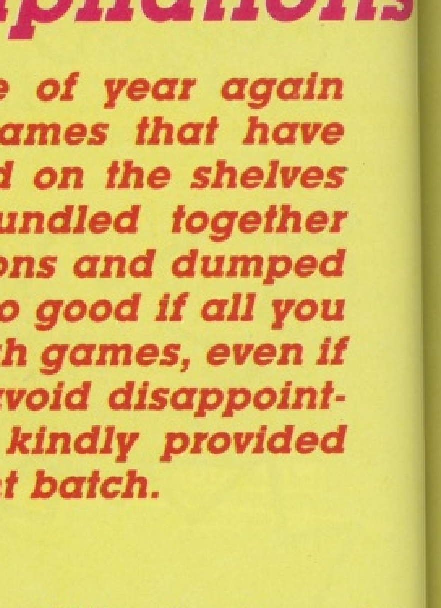
Thundercats is a fairly weak tie-in with the cartoon/toys of the same name. Lion-o runs across horizontally scrolling lands of molemen and other such monstrosities, killing them all with no more than a flick from his sword.

While the spirits are a bit blocky there's some neat parallax scrolling in the backgrounds. The tedious run, chop, run, chop gameplay is relieved by short flight sections and different weapons. Followers of the characters probably want little more than this offers, but anyone else will have played it to death before long.

Dragons Lair was possibly the most adventurous coin-op conversion ever. The original was based around a cartoon adventure set in a haunted castle, with all the graphics stored as real cartoons on a laser disk. In practice it turned out to be an expensive pastime of trial and error gameplay.

Software Projects' 64 version was a multiple sectioned game that included some large graphics and often awkward gameplay. Despite this, the urge to see the next scene is strong and the multi-load that loads the next section while you play helps things along a great deal.

Buggy Boy and Ikari Warriors come top of the list. Dragon's Lair, Enduro Racer and Thundercats are all in the average and below bracket and as such do little for the overall value of the package. Save your pennies and shop around.



PLAYABLES!!!

Gold Silver Bronze (Epyx)

The first in the long-running Games series, Summer Games features eight olympic sporting events: pole vault, diving, 4x400 metre relay, 100 metre spring, gymnastics, freestyle relay, 100 metre relay and skeet shooting.

Its graphics look very bland in places but most of the sprite animation is convincing. Controls are basic but the multi-player format keeps the game's head above water.

Summer Games II is a big improvement over number one in every respect. Another eight events get the treatment: triple jump, rowing, kayaking, javelin, high jump, fencing, cycling and equestrian. Most of the events are very playable and the graphics are often superb.

Winter Games improves once again on the graphics of its forerunners with its spectacular scenes of snow-capped mountains. Hot dog ariels, figure and free skating, ski jump, biathlon, speed skating and bobsled are the varied events, which as always can be practiced or competed in with up to eight players.

Summer Games shows its age but the other two in the package stand up very well against today's sport sims, and with all the 23 events will keep you going for a long while, but this price is a touch over the top for a three game set.

History in the Making

A compilation of emmense proportions, History in the Making is a collection of fifteen games originally released between summer '84 and summer '87.

Leaderboard, the original game brought realistic, playable golf to computer gamers for the first time. Its combination of believable ball movement, uncluttered gameplay and multiple player, multiple course format earned it universal acclaim. It has since been surpassed by umpteen updates (Executive, World Class editions etc.) but is still the neat little game it always was.

Express Raider takes you through all your favourite western movie scenes, kicking the hell out of no-good cowboys, punch-ups atop moving trains and a bit of horsey riding thrown in to round it off.

Graphics are chunky, sound is basic and the gameplay is a weak mix of beat'em up and sh ot'em up action. It's not that bad, but was never much good in its day.

Impossible Mission combines platform leaping action with taxing but very satisfying puzzles. Your mission is to halt the appocalyptic plans of Elvin Atombender by searching out and piecing together a set of fragmented punch cards.

Graphics and sound (liste for Agent 4125's screams as he falls to his death) are superb even by '88's standards, and it's hard to believe it's one of the oldest games in the compilation. One of the few real classics that no 64 gamer should be without.

Super Cycle, from the creators of Pitstop II brought the high speed thrills of motor cycle racing (at the time of its release riding on the success of the coin-op Hang-on) to the 64.

It effectively introduces some new features to the tried and tested game style, including various weather conditions, traffic cones, bonus rounds and lane closures. A mite easy to complete, but still one of the best ever games of its kind.

Gauntlet was US Gold's Christmas biggy in '86 and although it was a stormer as far as their bank balance was concerned, it was received with some indecision by the public. The conversion was accurate and pleased addicts of the coin-op but it lost some of its shine through its bugs and unclear graphics.

No thanks to its many clones, the attraction of Gauntlet has worn thin these days. Nevertheless, newcomers should find enough monster mangling action to keep them quiet.

Beach Head II is a multi-stage action war game. Graphics are very basic but surprisingly the sound is of a much higher quality with speech and realistic effects all over the place. Everything else about the game is small and simple, including the gameplay.

Infiltrator is another amalgamation of gamestyles, this time stage one takes the form of a helicopter flight simulation. Stage two is an atmospheric stroll around the infiltrated enemy camp in which you are constantly ordered to present your forged papers to impatient guards. The final section has you frantically searching the lockers and files of the complex for vital info.

Unfortunately, the quality and detail of the initial stages is not followed up later in the game when it deteriorates into a mundane search around a maze of similar rooms.

Kung Fu Master was the forerunner to many of today's most popular karate coin-ops (Dragon Ninja, Vigilante, Double Dragon etc.) and despite its expanded sprites and ordinary sound, the satisfaction gained from kicking and punching your way through crowds of baddies makes up for its logoland characters. By no means the best beat 'em up available but an enjoyable way to let out your everyday frustrations.

Spy Hunter was converted from the coin-op that can now usually be found in dark lonely corners of dark lonely arcades. It puts you in the driving seat of an armoured Bond-style car, out to clear up the highways that are infested with gangsters. The cannon mounted on your bonnet adds some shoot 'em up flavour to the drive and dodge gameplay.

A pleasant tune plays when you dock with the weapons van but that aside all the sound and graphics are firmly set in the past. Scrolling is smooth and the car handles well but the game is just that bit too simple for most of us.

Road Runner's unique style of humour was successfully captured in this horizontally scrolling chase across the canyons and deserts of North America. You play Road Runner, constantly persued by Wile E. Coyote. A number of contraptions straight out of the cartoon are used by Wile E. in his quest for lunch.

Graphics are suitably bright and humourous, as are the soundtracks. A must for Road Runner fans.

Bruce Lee is another that shows its age in terms of sound and graphics but plays as well as the majority of recent releases. An arcade adventure spread over a large number of

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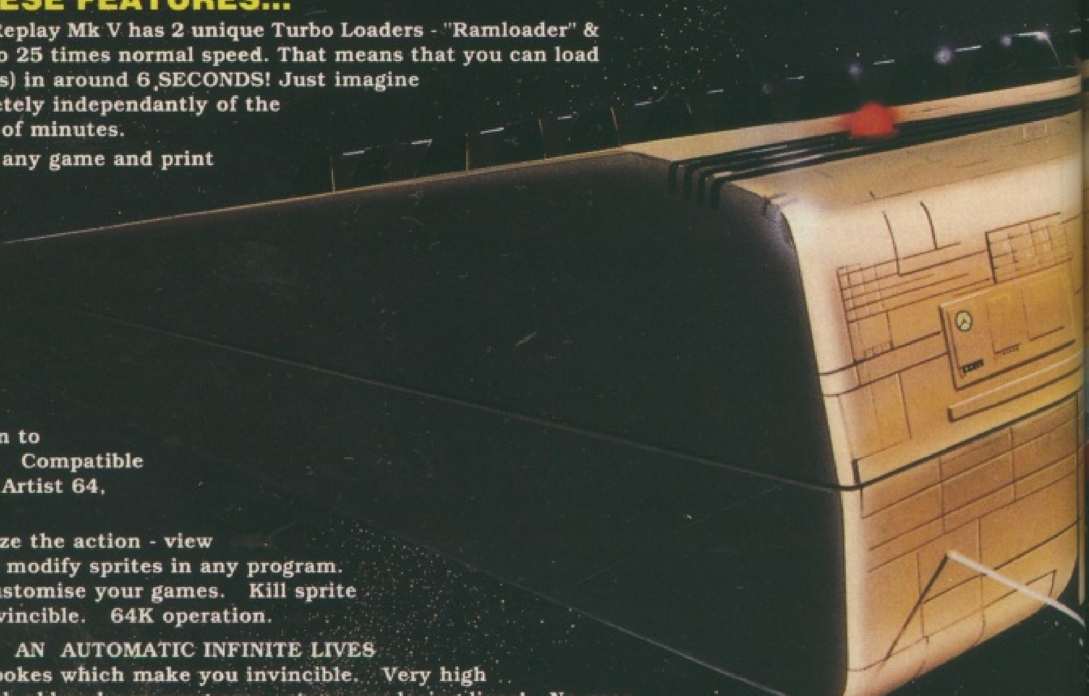

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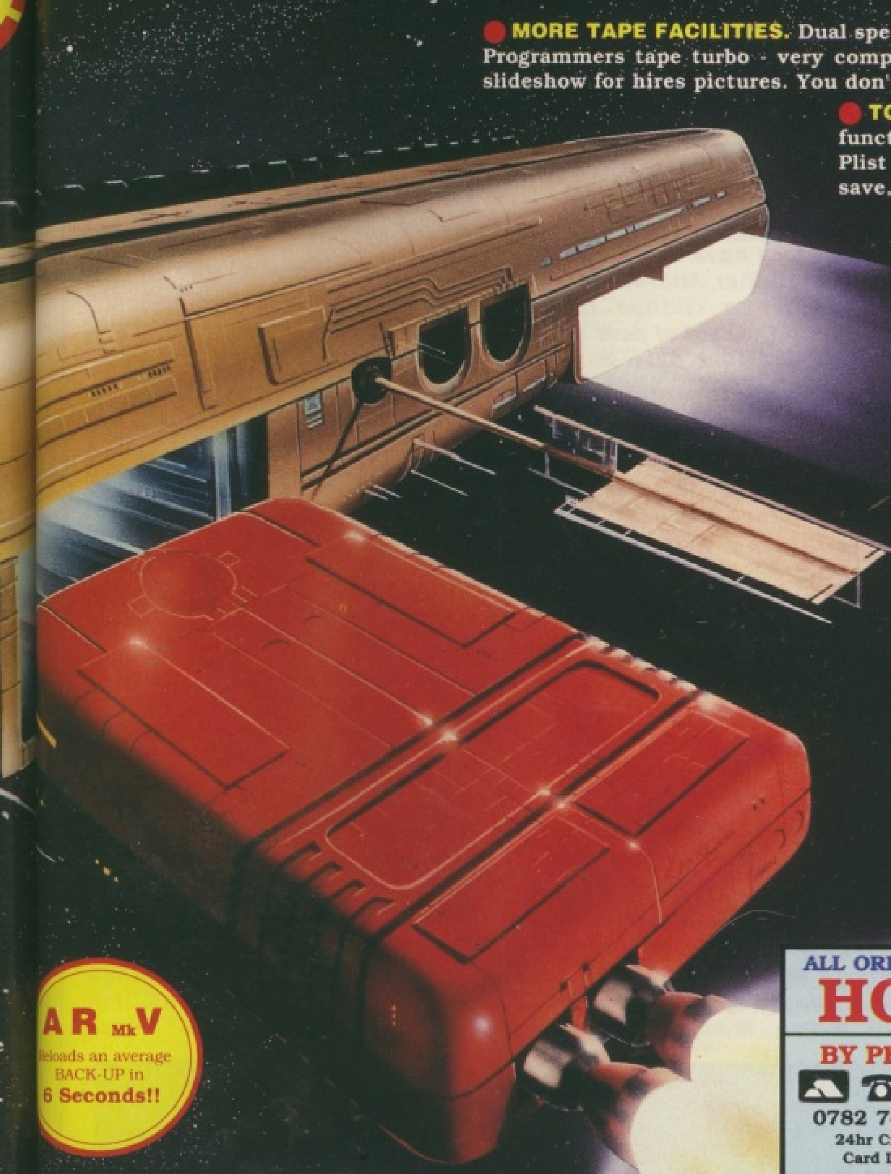

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varied screens, the game gives you the chance to play Bruce, while the fat green Yamo (a stupid but strong sumo wrestler) can be controlled either by a second player or the computer.

Ignore the small blocky graphics and you have a great little game that will make a nice change from the standard one-on-one karate simulations.

Goonies is an unfortunate game that has its origins in the kids' adventure film of the same name. Dreadful colour schemes and spirits do very little for what could have been a fun little game. The worst of the lot.

World Games is another of those great games that never seems to die. It takes the players around the world, stopping off at various locations to participate in the local sport. There's log rolling in Canada, Caber Tossing in Scotland, sumo wrestling in Japan and cliff diving in Mexico to name a few!

All of the graphics are amazing, just take a look at the puffing, bloated sumo wrestler as he lies exhausted on the deck after a bout! Play it today and you'll still be playing it this time next year, and most likely the year after that. Nothing short of superb.

Raid (Over Moscow) is a great game very much in the style of Beach Head I and II. Seven sections see you on a mission to avert a nuclear attack from Russia. Most of the game is based on a number of shoot 'em up themes that give the whole thing a great deal of variety. Again, a lot of the graphics are unimpressive but the game shines through.

Beach Head sets you the task of invading an enemy base set on a remote island. Another multi-stage wargame casts you as captain of a naval fleet which must break through the initial seabourne defences. Landing on the beaches, tanks trundle off on their way to the base where a final shoot out decides the victor. Not quite up to the standards of Raid, but enjoyable all the same.

Thirty quid is not cheap, but then this is no ordinary compilation, though seasoned 64 games will most likely have the majority of these already. Games like Leaderboard, World Games and Impossible Mission make the package a great long term investment. Together with the rest, History in the Making would make an ideal buy for anyone new to the 64.

10 Great Games III

Ten great games, or ten not so great games?

Last Mission is a disgusting multi-directionally scrolling shoot 'em up with some of the blockiest, most tasteless graphics ever seen. Not only that, the scrolling has a jerky glitch that crops up all too often. Forget it.

Iridis Alpha: a typically wierd game from Mr Wierd himself, Jeff Minter. A gilby fighter is your transport in this horizontally scrolling blaster with a difference (or two). There's too much in it to describe it properly here, but if you want something a bit out of the ordinary, this is your game.

Alleykat scrolls vertically and is not that different from your standard scrolly shooter, but for those extra details that have become the trademark of author Andrew Braybrook. To make a change from saving mankind, Alleykat puts you in a race where foul play is fair play.

For all its peripheral screens of options, the actual game is a bit disappointing. Fans of Braybrook's other games should be interested but don't expect too much.

Leaderboard (see History in the Making)

10th Frame can be thought of as the ten pin bowling version of Leaderboard. It has a very similar control method and an equally well animated character sprite. The pin fall is extremely realistic but the game is too limited. Being confined to a single bowling alley was unavoidable, but without the great feeling of freedom generated by Leaderboard's landscapes its appeal tends to wear off before long, though I can't see anyone beating this for realism.

Ranarama was a good attempt at a more strategic variation on the Gauntlet theme. It concentrates a lot more on magical and scorcery rather than demanding you slay crowds of monsters as in the coin-op. Leaning more the role playing side of things, Ranarama will find favour with anyone who wants a bit more depth from their Gauntlet clone.

Fighter Pilot is as its name suggests, a flight simulator. Flight sims have come a long way since this hit the charts. Most of the game is played looking at a tilting horizon where the featureless ground meets the sky. Hardly state of the art.

Firelord is a multi-screen arcade adventure very much in the style of Ultimate's early Spectrum games (gameplay from Sabre Wulf, graphics from Knight Lore). The wooded screens make up a maze through which you scurry on your way to becoming Master of Camelot. Trading screens add some strategy but the gameplay is old hat.

Eagles has a horizontally split screen to show independant scrolling views for each player. Sophisticated jet fighter planes are under the players' control in what is no more than a two player defender variant, and a puny one at that. Originally released by Hewson but not up to their usual high standard.

Rebounder rounds off the compilation. The sequel to the very original and entertaining Bounder still has you controlling that tennis ball bouncing on platforms high in the sky, but now has developed four way scrolling, extra weapons and junctions. Almost as much fun as the first game, Rebounder is a novel variation on the platform theme.

Instead of "Ten Great Games III", maybe it should have been titled "Three Great Games X"; the only games that could really be called great are Rebounder, 10th Frame and Leaderboard. The rest range from naff to average. In all, not much cop really.

T.H.

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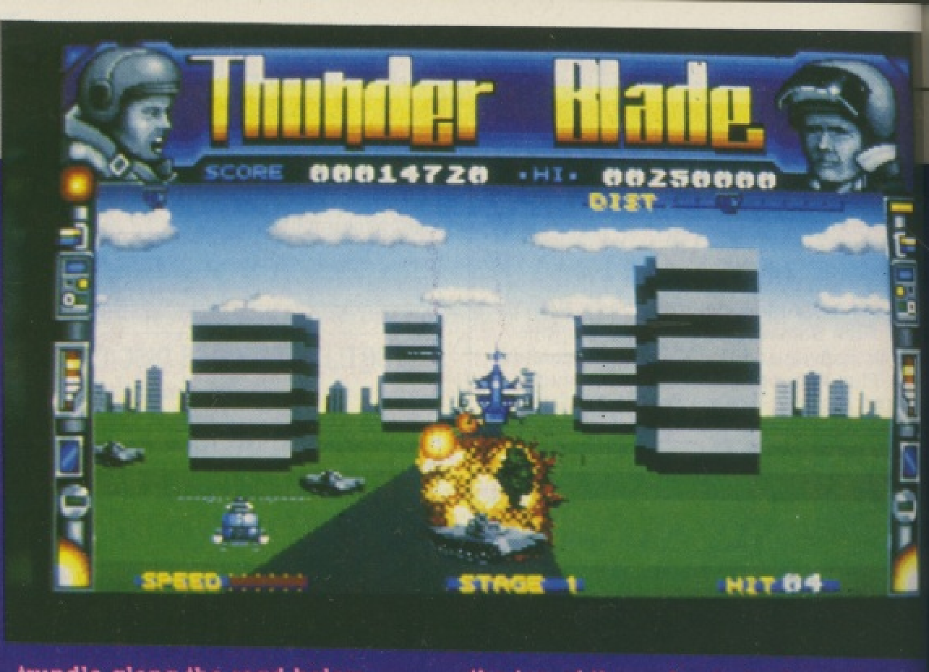
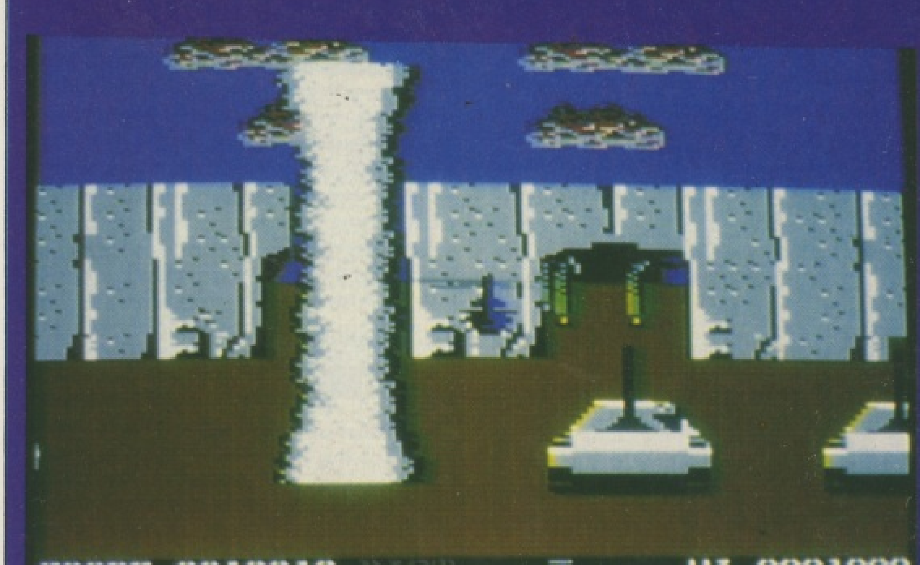


As the hardware used by the altest arcade hits constantly improves, the job of a the man who tries to replicate them on 8-bit machines gets progressively more difficult. Experienced in the art of arcade to home conversion, Chris Butler is that very man and in the case of Thunderblade he has coped surprisingly well with the tough task.

It's that favourite "one man against the entire enemy army" scenario again, this time you are at the controls of a heavily armed helicopter fighting both airborne and landbased assault vehicles. There are four levels in the game (loaded separately) and these are each divided in three sections.

Level one begins with your chopper buzzing over and through a city of tower blocks, viewed from above your aircraft. These scroll down the screen in 3D, giving a more realistic feeling of height than a standard 2D scroll. Your altitude is controllable, though the sensation of diving and climbing is not all it could have been. Tanks trundle along the road below, teaming up with jeeps and helicopters to try to blow you out of the sky.

Soon you reach the end of the first stage and the view-point changes to one close behind the chopper. More tower blocks stand in your way and pose a greater threat than before as you now lose your ability to fly over the top of them. Again tanks and enemy choppers shoot fireballs in your direction but nothing your machine guns and missiles can't sort out. At top speed the 3D is very fast but a bit wobbly in places. There are sufficient frames in all the objects' animation for the effect to work well, even if the tower blocks look like licorice allsorts.



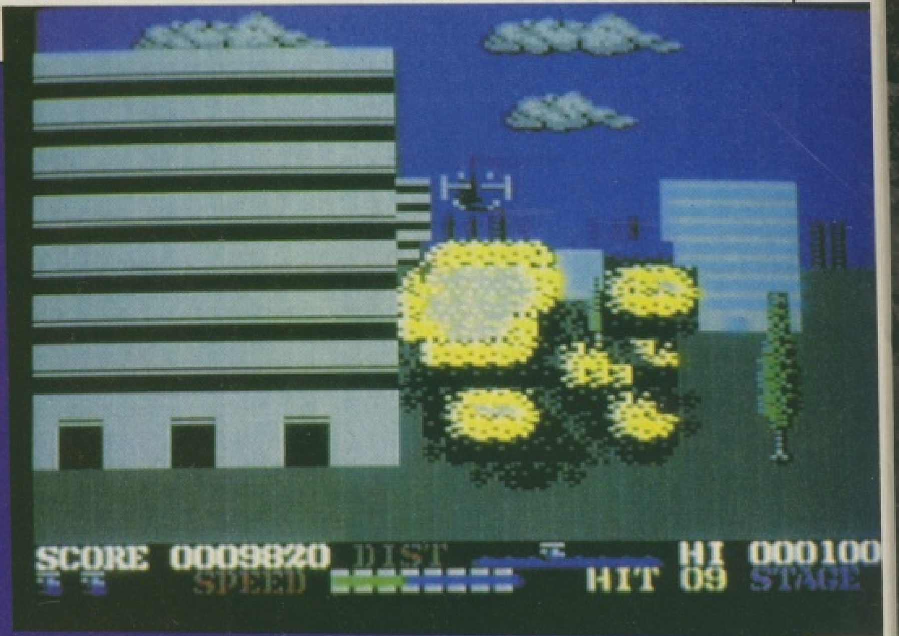
Next comes a comparatively standard implementation of an attack over a giant battleship. Like the first stage it scrolls down the screen but has done away with the 3D perspective. To make up for this there are loads of gun installations to blow up with your rockets, making for a very satisfying, if not particularly original shoot 'em up in the traditional style. Reach the end alive and you find yourself transported to the beginning of level two.

The rocky cliff walls are pretty blocky but then again, what are rocks if they are not blocky? Moving swiftly along (as you tend to do in this game) we arrive at stage two. The caverns of the arcade original have been compromised a little with the omission of a ceiling, but the towering columns and gateways interspersed with conifers hurtle out of the screen at a fair whack.

Survive that and a huge armoured vehicle descends the screen in a similar fashion to the battleship.

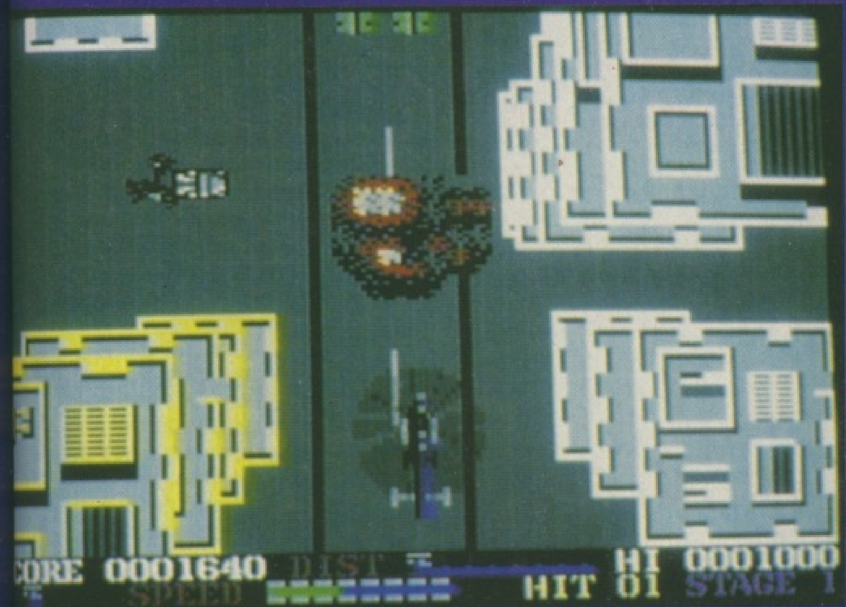
Stages one and two of the next level have a strong sea-faring flavour (you know, sort of fishy with salty overtones). The tangled bushes sprouting from the blue depths are so big in places they obscure the enemy gunboats, so there's no time to hang around admiring the scenery.

> *"Tanks and enemy choppers shoot fireballs in your direction but nothing your machine guns and missiles can't sort out."*



ERBLADE

US Gold



At the start of the game you get the choice of playing to a suitably helicopterish backing track or some standard woosh-bang sound effects.

Despite their slightly untidy look, the graphics are often impressive emulations of the originals. Then again, some sections of the game are really no more than the hundreds of vertically scrolling shoot 'em ups we have seen over the last year or two. It's the 3D sections seen from behind the chopper that form the backbone of Thunderblade on the 64. The other sections often serve only as mildy entertaining intermissions. Still, the good bits are very good and coin-up Thunderbladers should not be disappointed, and with its variety of phases will keep you at it longer than most coin-op conversions this Christmas.

Incidentally, U.S. Gold who believe Thunderblade will 'outrun' Outrun, last year's Number One in the charts (and for that matter Operation Wolf and Afterburner too) are to be praised for lowering the price of the disk version to £11.95, making Thunderblade probably the best disk value around.

T.H.

Graphics: 80%
Sound: 74%
Playability 85%
Overall: 80%
Rating: MEGA
Price: £9.95 (cass)
£11.95 (disk)

An Amiga version should be finished by the time you read this. The game we saw looked very close to the original but for a slight lack of speed. Smoother perspectives give excellent sensations of flight and vertigo. Let's hope they can speed it up a little in time for the release.

Adventure

BY
ANDY
MOSS

> ***"Our interactive fiction stood out for its richness and depth in comparison to others. Today, with the graphic and memory power of our computers we feel that we really can add an exciting visual dimension to our stories without sacrificing any of the qualities that our customer's love."***

'ADVENTURE, USA STYLE' IS THE SUBJECT FOR THIS MONTHS ADVENTURE COLUMN, ANDY MOSS GOES TRANSATLANTIC IN SEARCH OF INFOCOM, AMONGST OTHERS.

In an effort to bring you only the very best coverage here at CCI, (would we offer anything else to the brightest readers around?) your hero writes to you this month from the United States, where I have been in hot pursuit of some legendary names in the adventuring world. My first port of call was Cambridge, up near Boston which is the hallowed home of Infocom, after that it was over to the west coast and a visit to Electronic Arts near San Francisco and then on to Los Angeles to pop in on big Bob at Cinemaware. After seeing some of the development work that is taking place at these companies right now, it is apparent that next year is really going to be something to look forward to, for adventure fans with some clever innovative new products on the drawing board.

Having the chance to visit Infocom on their home territory was something that I had been yearning to do since I finally finished Zork III, and I confess that driving towards their hallowed office I felt a heightening excitement that increased right up until I turned into the parking lot that was beside their building.

The Infocom HQ is as much unlike an adventure environment as you can get. Smooth, ultra-modern doors whisk open automatically to envelop you upon entering into a formal modern business reception area. I kept thinking that any minute an elf or at least the odd wizard might just be waiting for me around the corner, but sadly no, just more office suites with more hardware and more copious files.

As I entered the reception area, I almost bumped into Dave Lebling, co-author of ZORK and co-founder of the company. We had met before, if you recall, at the Mediagenic Press bash and with not so much as a 'Christ I know him, but I can't remember where from!' memory lapse, he straight off said "Hi Andy, good to see you again." I was humbled. The great Lebling remembered me! I was ushered in to meet the rest of the gang by the beautiful and charming Eileen Milauskas who, if she worked in my office, would certainly stop me from concentrating on anything to do with computers for ever...

continued on page 98

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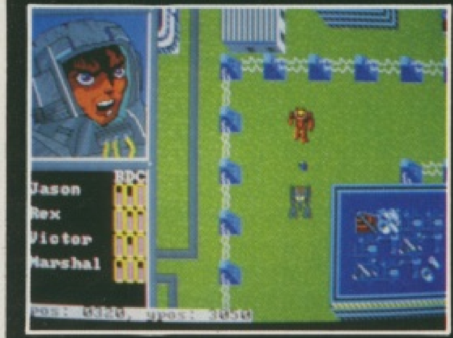
continued from page 96

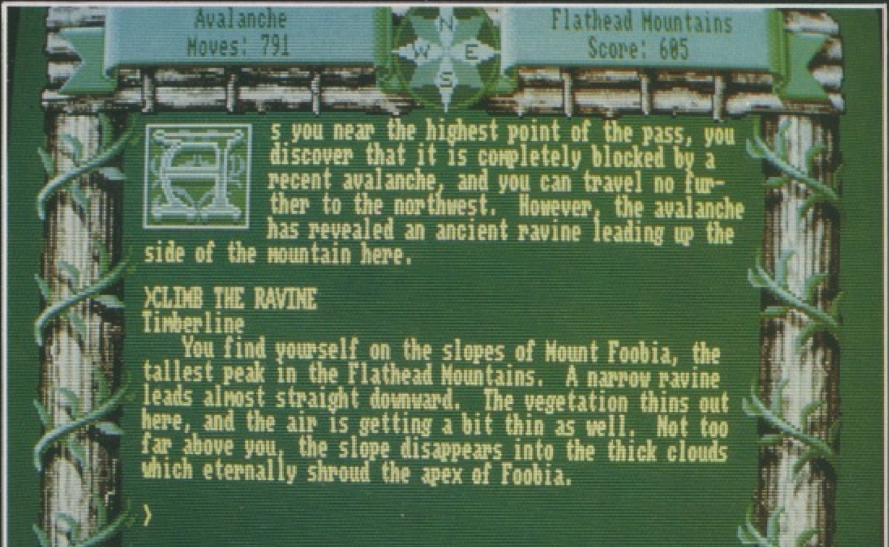
The first office we went into was manned by one Jeff O'Neil who is responsible for Infocom's major graphic role player BATTLETECH.



Up and running simultaneously were three versions, IBM, Comm 64 and Amiga, all looking pretty much the same graphically (a fantastic achievement for the 64) and as we were seated, we were treated to a lightning-quick tour of the whole game via Jeff's special cheat routine which he used in developing the game.

Infocom have joined forces for this project with Westwood Associates, whose own game THE MARS SAGA is reviewed this month, and their involvement has a lot to do with the battle and strategy routines in BATTLETECH. The game boasts over FOUR MILLION locations which just has to be the biggest role-player ever, and the game is not just a hack-and-slay copy of all others of the genre, it really does have a finely interwoven storyline. Coupled with that is a new approach, which Infocom call "emotive out-takes". These are on screen windows which display the emotive responses of the characters as well as zoom in on particular battle action sequences in the game. All-in-al Battletech is a big gamble for Infocom, it is really something entirely different to what they are known for and in time we will find out if the gamble has paid off.

Moving on from Jeff's office, we enter the domain of Lebling, one of the most well-known Infocom authors, whose list includes, all the Zorks, Enchanter, Starcross, Suspect, Spellbreaker and Lurking Horror. He is currently hard at work on SHOGUN, his first graphic enhanced adventure. When I asked about his famous phrase concerning graphics in Infocom adventures, the one that went "we stick our graphics where the sun don't shine", Dave answered honestly. "At that time, computers had a limited memory capacity and only rudimantary graphic capabilities. Our interactive fiction stood out for its richness and depth in comparison to others. Today, with the graphic and memory power of our computers we feel that we really can add an exciting visual dimension to our stories without sacrificing any of the qualities that our customer'as love." Looking at the pictures in SHOGUN which are really quite lovely, I have to agree with him. "The graphic element has enabled us to do different things with our games" he continued, "Steve Meretzsky in ZORK ZERO has made some quite fabulous visual puzzles that really take some working out".



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Avalanche                          Flathead Mountains
Moves: 791                         Score: 605

s you near the highest point of the pass, you
discover that it is completely blocked by a
recent avalanche, and you can travel no fur-
ther to the northwest.  However, the avalanche
has revealed an ancient ravine leading up the
side of the mountain here.

>CLIMB THE RAVINE
Timberline
   You find yourself on the slopes of Mount Foobia, the
tallest peak in the Flathead Mountains.  A narrow ravine
leads almost straight downward.  The vegetation thins out
here, and the air is getting a bit thin as well.  Not too
far above you, the slope disappears into the thick clouds
which eternally shroud the apex of Foobia.

>
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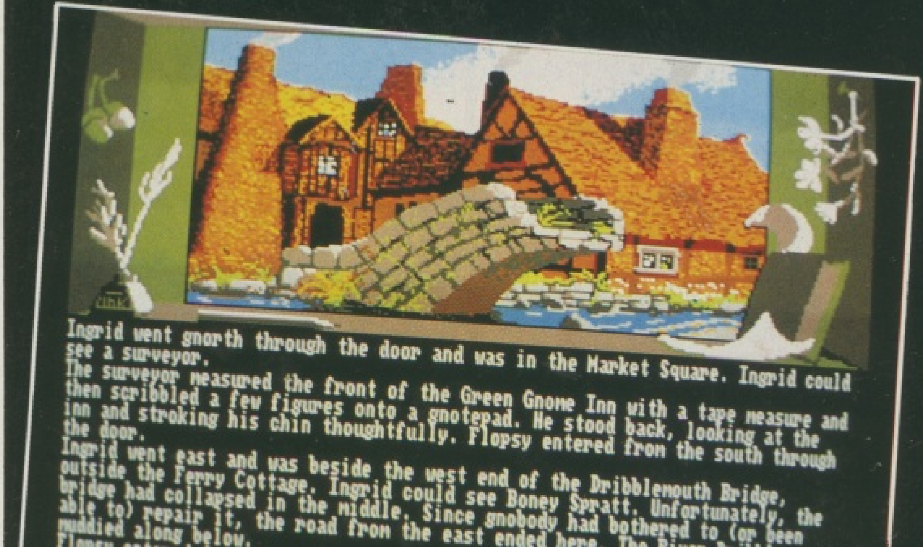
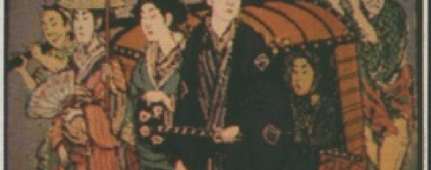


```
Ingrid went gnorth through the door and was in the Market Square. Ingrid could
see a surveyor.
The surveyor measured the front of the Green Gnome Inn with a tape measure and
then scribbled a few figures onto a gnotepad. He stood back, looking at the
inn and stroking his chin thoughtfully. Flopsy entered from the south through
the door.
Ingrid went east and was beside the west end of the Dribblemouth Bridge,
outside the Ferry Cottage. Ingrid could see Boney Spratt. Unfortunately, the
bridge had collapsed in the middle. Since gnobody had bothered to (or been
able to) repair it, the road from the east ended here. The River Dribble
muddied along below.
Flopsy entered from the west.
What gnow? ransave
```

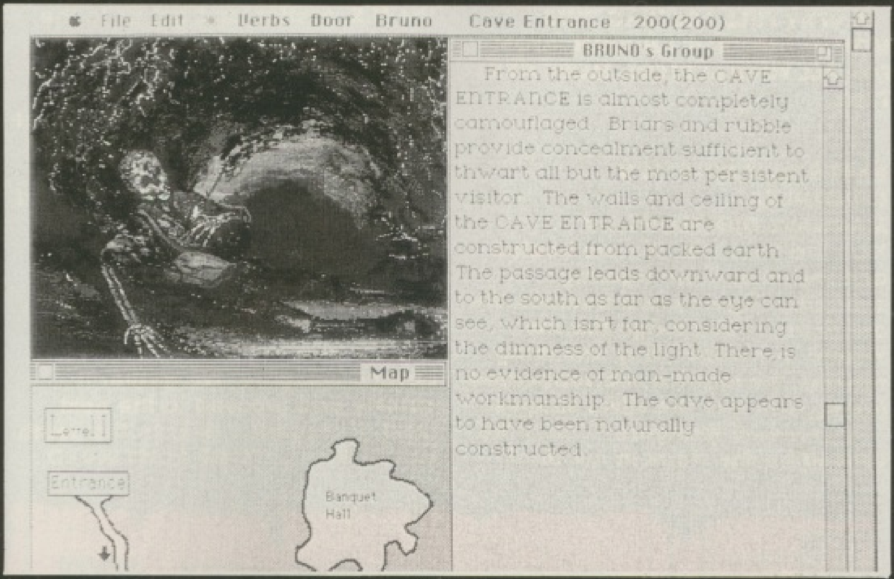
Dave has worked very closely with James Clavell, author of the original Shogun. "He has read the script in the game, and overseen every aspect of the development. Shogun is different from say ZORK in that the player's success is more reliant upon his/her ability to think and make decisions as Blackthorne (the hero) would, rather than solving complicatod puzzles".

Zork Zero was next, and this has



been billed as a prequel to the Zork series, when the underground Empire was about to collapse, and what indeed was the cause of it. It has over 200 locations, and more puzzles than all three Zorks, it is the biggest adventure yet from Infocom. The graphic puzzles mentioned by Dave really are cleverly implemented, with such exotic names as Peggleboz, Sharfem, and Double Fanucci, which is a sort of picture instead of words type game that make up a sentence, the only problem being that it is structured BACKWARDS! Great.

A quick look at Quarterstaff and Journey, and then it was over, time to return to my hotel, and ponder that asked question, is Infocom still the great force it was? The answer is a mighty yes. So a dream come true, I met my heroes and role models, but more was to come. Next month I will tell you about my West Coast tales of adventure, till then it is news desk time.



From the outside, the CAVE ENTRANCE is almost completely camouflaged. Briars and rubble provide concealment sufficient to thwart all but the most persistent visitor. The walls and ceiling of the CAVE ENTRANCE are constructed from packed earth. The passage leads downward and to the south as far as the eye can see, which isn't far, considering the dimness of the light. There is no evidence of man-made workmanship. The cave appears to have been naturally constructed.

ADVENTURE NEWS

MAGNETIC SCROLLS WIN AWARD

Mag Scrolls latest adventure CORRUPTION was voted Game Of The Year at the 1988 Personal Computer Awards. This follows the enormous success of Guild Of Thieves, which was given the accolade of Game Of The Year at the British Micro Awards last year. It seems that Mag Scrolls have finally got the recognition they deserve as Britain's number one adventure house. Sorry Level 9, maybe you will regain the top spot next year.

ULTIMA V AT LAST

After many months of promises and false hopes. Origin has at last released Ultima V for the 64. As reported, the game comes on four double sided disks, and carries a number of new features that previous Ultimas lacked. Review next month.

LEVEL 9 ACTIVE AGAIN

Level Nine after releasing LANCELOT and INGRID'S BACK are set to release another mini-epic entitled SPOOK (working title) in which you have 24 hours to try to find your murderer and free your spirit forever! Sounds completely different to anything they have done before.

CCI COMES TO THE RESCUE TO DAVID PICKING

If you remember my plea a couple of issues back, to the money software houses who are not accepting home grown adventure products written on a commercially available utility, you will remember one David Picking, who managed to get a 9 score from me with his adventure CITADEL. It seems that after my review, he repitched Incentive to have a closer look at the game, and was pleased to learn that they indeed did take it more seriously this time round. He received a personal reply, which stated that they thought the game was "very enjoyable and professionally presented", and mentioned that they could soon be returning to publishing adventure software again. They kept the hint sheet and my review so David is very confident that at last he is getting somewhere. Well done, mate, and about the prize I sent ... it is OK to send me back the game as you already have a copy, and I will send something else, or do you have a preference? Tell me and I will send it to you forthwith. Also, I read the review of CITADEL in Adventure Probe, and it is good that Mandy Rodrigues agrees with me, so now you have two people on your side!

NEW ADVENTURE HOUSE

New software house Chrysalis are releasing a graphic adventure entitled PRISON, about a convict on a distant Penal Planet who hears of a rumour about an escape ship hidden on the planet somewhere. The player must search for clues, but the location is only know to a few, and the knowledge is a closely guarded secret.

ADVENTURE LETTERS

Dear Andy
After reading about your request for adventure top tens, I am sending you my list, which consists mainly of role playing games. 1. ALTERNATE REALITY (DUNGEON) 2. STARFLIGHT 3. BARDS TALE 4. MIGHT AND MAGIC 5. SUNDONG 6. ULTIMA II 7. DESTINY KNIGHT 8. ENCHANTER 9. UNIVERSE AND SUSPENDED 10. ALTERNATIVE REALITY (CITY). I started playing Dand D in '82. Do you remember TELENGARDE, LEGACY OF LLYLGAMA, AND EMPIRE OF THE OVERMIND?
Rezas Clyro, Surrey

As a matter of fact, Rezas, I do remember EMPIRE very well. Some friends of mine got together with me one weekend and we played it for 24 hours non stop!

Dear Andy
I am writing from across the miles for many reasons. First of all G'day. Secondly, I'd like to say you write the best and longest adventure section of all, although you should have a tips section each month. The main reason I am writing, is for help with Rigels Revenge. How do you leave the flat without getting shot. I have tried using the red button on the medkit for strength but I can only bend one bar, not enough for me to squeeze through. Keep up the good work.
Danny Jensen, Australia

cont. on next page

G'day mate, good of you to write cobber. You are on the right lines with using the medikit, and should persevere with bending the bars. A little repetition of the same thing will reward you with a bigger space. I always put in tips if there is room.

Dear Andy
Thanks very much for printing my letter in the July issue, and thanks for the Knight Orc hint. I have just read your review of the Bards III game, and that you will offer a prize to whoever finishes it before you do. I enclose the final screen photo for you. Also here are some general adventure hints.

QUESTRON To get loads of money deposit all your gold in the bank, then attack the guards in order to die. You will be resurrected and now have 200 gold pieces. Visit a bank, and you will find your original deposit still there. Repeat this as many times as you like, as each time you get resurrected you get another 200.

JACK THE RIPPER Examine the knife closely, and cover the ink bottle when throwing it out of the window.
Oliver Naujoks, West Germany

Thanks for your picture Oliver, and I will be sending a prize straight off. Well done! Many thanks also for your tips, the rest I shall put in next month.

Dear Andy
I refer to your article in CCI concerning Bards Tale III. In it you stated that anyone finishing the game before you would be eligible for a reward. Please find enclosed photos of the final screen. I would be obliged if you would send any reward to Mr Douglas Thomson at the above address. Please note that I will follow this letter with the complete solution and maps in 2 or 3 days.
Douglas Thomson, Surrey

My, what a formal letter Doug, but nevertheless, you finished it! Well done, and yes a "reward" will be forthcoming if you will permit me to compensate you accordingly and to which I would be deeply honoured if you would accept such as I deem necessarily relevant according to your wishes kind sir.

A VERY FULL POSTBAG THIS MONTH AND NOT ENOUGH ROOM FOR ALL YOUR LETTERS. MORE NEXT TIME.

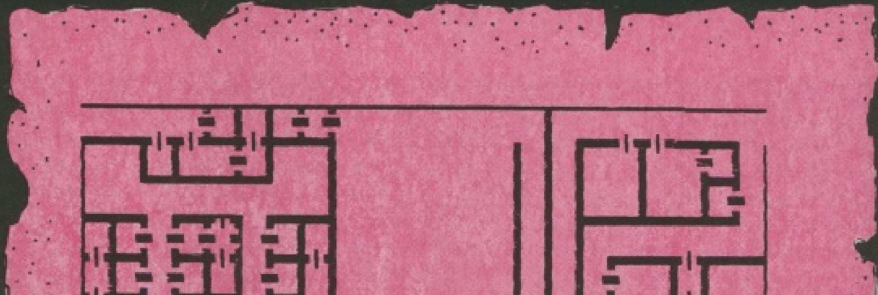
BARDS TALE SOLUTION CONTINUED...

MANGARS DUNGEONS 1-2

Now the final test. We are healed and rested and our fighting strength is again a fair number. We are ready to challenge the vile Wizard in his lair. Only one thing rankles, the rogue has disappeared taking with him the silver shapes.

We entered Mangars Domain by ascending the stairs in the third level of the sewers, and using the Key of Onyx. There are countless creatures here, but they are no match for us now. A magic mouth lectured us on the virtues of perserverence. Soriac informed me tht the words of the mouth are in fact the means to unlock a door in the N.E. section and get us to the next level.

A magic mouth gives us a riddle "two shapes yours, and one's around, speak the shape, and final found" Soriac knew the answer. "A circle" he said, and was provided with a flat silver circle that matched the ones stolen by the rogue. We hope that we do not need his damned shapes. The demons and vampires that are here are hitting us hard, and our number lessens, but the treasure here is wonderous beyond compare. We gather it quickly and proceed to the next level, through the door in the south east section ... TO BE CONTINUED ...



Mangar, Level One

continued on page 102

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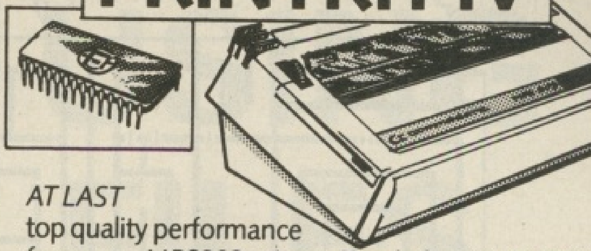

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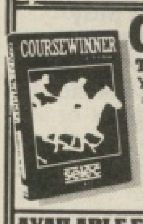

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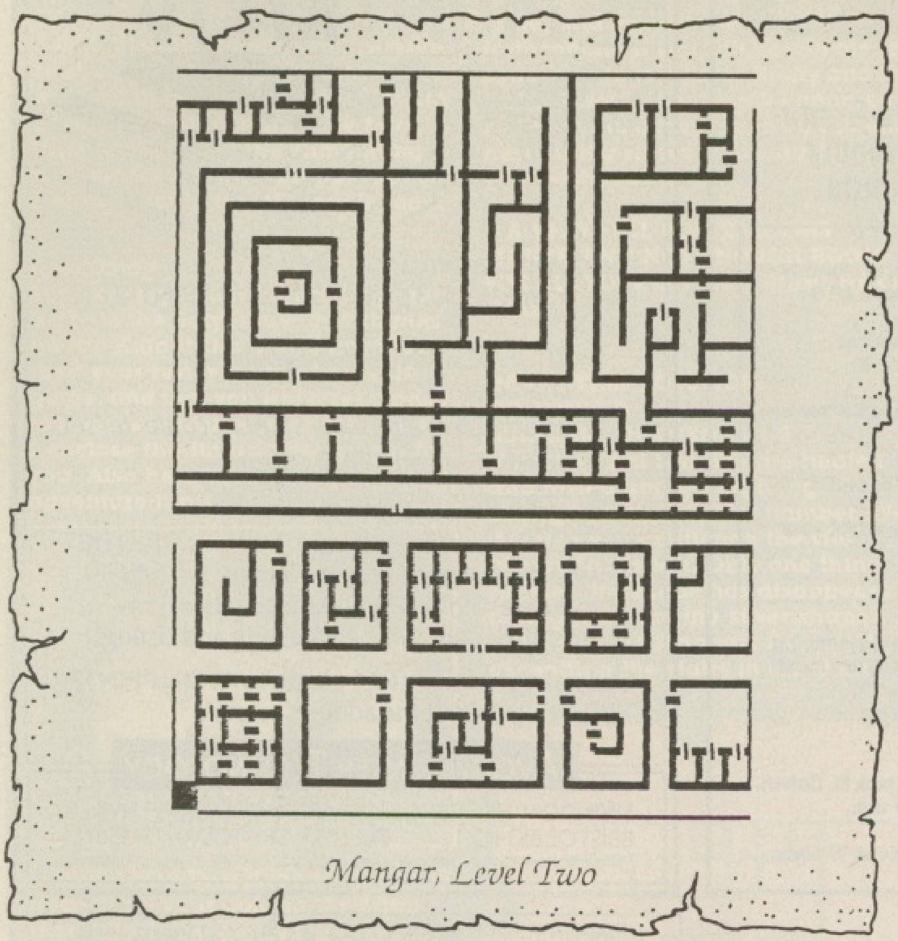


Mangar, Level Two

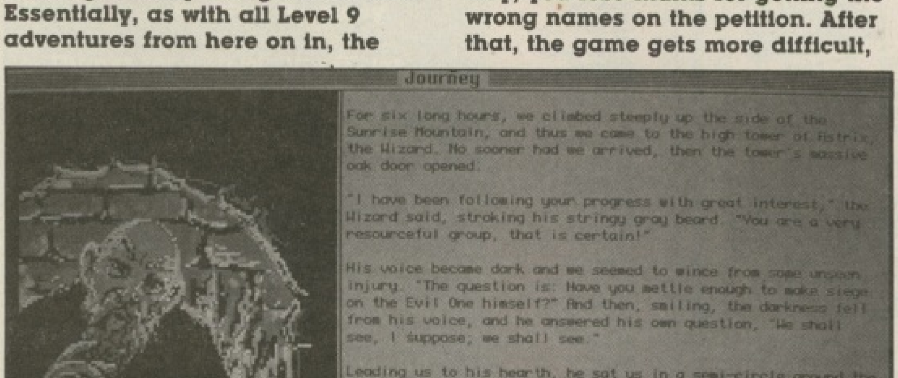
ADVENTURE REVIEWS

INGRIDS BACK
LEVEL 9 £14.95

After trying out various publishing houses, Level 9 are back to doing their own thing, and "Ingrids Back" is the sequel to Gnome Ranger which generally had good reviews. Essentially, as with all Level 9 adventures from here on in, the three parts to the game are carefully structured. The first part, in which you have to get Ingrid to gather signatures for a petition against Jasper Quickbucks attempts to turn the village of Little Moaning into an estate of yuppie homes, is more of an introduction to the characters, with only one or two puzzles to stump you with. By the way, you lose marks for getting the wrong names on the petition. After that, the game gets more difficult, as in part two, Ingrid has to defend Gnettlefield farm from Trolls intent on no good, and finally in part three, infiltrate Jaspers Manor house and pull the plug on his dirty deeds. There are some lovely moments in the game, like when Ingrid visits Mrs Tackhammer in her bedroom, only to find Seamus hiding in the wardrobe! When she offers him the petition he hastily signs it. I wonder why?

The only real moan I have is that as a gimmick putting G in front of every word beginning with an N was funny to start with in Gnome Ranger, but to do it again all through Ingrid becomes a trifle tedious. That apart, Ingrids Back is a joyous romp through the tales of Gnettlefield.

PERSONAL RATING 8



For six long hours, we climbed steeply up the side of the Sunrise Mountain, and thus we came to the high tower of Astrix, the Wizard. No sooner had we arrived, then the tower's massive oak door opened.

"I have been following your progress with great interest," the Wizard said, stroking his stringy gray beard. "You are a very resourceful group, that is certain!"

His voice became dark and we seemed to wince from some unseen injury. "The question is: Have you mettle enough to make siege on the Evil One himself?" And then, smiling, the darkness fell from his voice, and he answered his own question, "We shall see, I suppose; we shall see."

Leading us to his hearth, he sat us in a semi-circle around the blazing fire and spoke. "There is a story I must tell, a story of the Seven Stones. Created in a time lost to living memory, these Stones contained the very strength and essence of our world. Of the Seven, Four were entrusted to the races of men who could use them best: Elves, Dwarves, Nymphs, and Wizards."

"These are the Four: the Elf Stone, green as the forests of old, and the Dwarf Stone, brown as the caverns of Forn a-klamen; the Nymph Stone, blue as the deep waters of M'nera,
[MORE]

THE MARS SAGA
ELECTRONIC ARTS £14.95

2055 AD. Man has finally colonised Mars, but not in a way you would think. It is a prison colony that uses convicts to mine the planet for the precious minerals that exist there. You play the part of Tom Jetland, a poor mercenary, who hears about some trouble on Proscenium, a distant outpost on Mars, where all contact has been lost. If you can unravel the mystery your freedom is guaranteed. You start off in a bar in Primus the biggest City, where new recruits could be found to help you get started.

This science fiction role-player has some really innovative features. Each character can learn up to 21 advanced skills, from programming and languages through to Munitions and street skills. There is an auto-mapping feature that can be saved as you play, and all combat takes place in top down overview, so you can plan your strategy easier, or indeed let the computer do it for you.

There are plenty of sub-missions to go in order to gain money, and each place you enter, has Bards tale type pictograms detailing the scens. A very user friendly adventure, that is not hard in the Ultima sense, but lets you play rather than kill you off at the earliest opportunity.

Well worth a look, as a meritable addition to your role-playing collection.

PERSONAL RATING 8

THAT'S IT FOR THIS MONTH. MORE FROM MY TRAVELS IN AMERICA NEXT TIME, AND REVIEWS (AT LAST) OF ULTIMA V AND POOLS OF RADIANCE. SEE YOU THEN.

CP/M — USING SUBMIT FILES

Chris Wright of I.C.P.U.G. has pointed out to us that CP/M is still used by many Commodore people who would benefit from a little automation

If you use CP/M frequently you will find yourself using the same commands over and over again. Sometimes these commands can be quite a complex syntax. SUBMIT.COM on your systems disk can automate just about anything you can think of. What SUBMIT does is read from a simple text file with the file extension. .SUB a series of command lines you have previously typed in from the keyboard. It then creates a temporary file with the extension .$$$ which matches the .SUB file and, one by one, processes the commands and strips them from the temporary file. When the last command is dealt with, the temporary file is erased, which is why, unless you have a systems crash, you will never see the .$$$ in your disk directory. Apart from the imagination to create it, you need the means to do so and this is where ED.COM or better still VDO25.COM (I.C.P.U.G. P.D. Disk) comes in.

When first boot CP/M, the system looks for a file called PROFILE.SUB on the boot disk. If not there you drop straight into the familiar A> prompt. If such a file is found then the system starts to process the commands contained in that file. Remember that SUBMIT.COM must also reside on the boot disk for the PROFILE.SUB file to be interpreted. You must not cover the write protect notch either as SUBMIT.COM must write a temporary file to the boot disk. It is also a good idea to make sure that there is at least 10K free space on the boot disk to allow for large batches of commands to be processed. PROFILE.SUB may be used to parameterize your system, or for running a specific program. Knowing this, you may well set up individual boot disks for various applications such as booting up a modem, a database or word processor and all will then run automatically. Nearly all computers these days have this facility and it is very handy and time saving. It also frees the mind from having to remember what to do each time.

An example of a PROFILE.SUB is as follows:-

```
SETDEF *,A: [ORDER=(COM,SUB),
TEMPORARY=A[]
CONF PRT1=ASCII8, 40COL=OFF,
VOL=0
DATE SET
```

SETDEF is a program which also comes with your systems disk and does good things for you, more so if you have more than one drive or the Ram expansion. The first line of the PROFILE.SUB file uses this utility to first set a drive search chain. The *,A: portion says to the system, 'First look for a program on the currently logged drive and if you don't find it look for it on drive A:' So if your screen prompt is B> and you call a program that resides on the A: drive, CP/M will find and execute it. The next part [ORDER=(COM,SUB) tells the system to first check for a .COM file with the name you specify, and then, if unsuccessful, execute a .SUB file with the same name. Thereafter instead of having to type SUBMIT MYFILE you just have to enter MYFILE and provided SUBMIT.COM is on the same disk, away we go. The last section of that line tells CP/M to create the temporary file required by several different utilities (the .$$$ file) on a specific drive. This is especially useful if you have a Ram expansion pack as you can specify TEMPORARY=M: then you don't have to worry about insufficient room for temporary files on a floppy disk.

> *"The next part turns off the 40 column screen making the system speed up by about 8 to 10% and the final part turns off the sound, which also quickens the clock speed of the processor"*

The next line invokes a file called CONF which further configures your system. This sets some controls that will optimise the session for you. The first part tells the system what kind of printer you have ASCII or CBM and what secondary address used. My Laser uses address 8 to get upper and lower case with no auto line feeds. The next part turns off the 40 column screen making the system speed up by about 8 to 10% and the final part turns off the sound, which also quickens the clock speed of the processor. The last line allows the setting of the time and date.

Another example of a SUBMIT freeing you from having to look it up or even remember it is a way in which you backup some data files on another disk into a different user area, thus keeping them safe. Superbase users would Export the file. The syntax is:- PIP A:[G9]=8°*.DAT[A] This copies all changed files of type .DAT from disk B: to user area 9 on disk A: Just to look at this would be a paid to

cont. on next page

continued from page 103

CP/M — USING SUBMIT FILES

remember evey time so using VDO25.COM I created this line and saved it as BACKUP.SUB. Therefore all I had to do was type BACKUP and that particular line was executed and the backup done. Now we are getting somewhere. No more A> prompts, the system is really swining!

How about this one. You can also put program input into a SUBMIT file using the < character. This one is set up for the Ram expansion and although it is explained afterwards, if you have digested what has gone before you will start to see what is happening.

```
PIP
<M:=A:PIP.COM
<M:=A:ERASE.COM
<M:=A:PCFILE.COM
<M:=A:*.DAT
<:=A:*.NDX
<
M:
PCFILE
PIP
<A:=M:*.DAT
<A:=M:*.NDX
<
ERASE *.DAT[C]
ERASE *.NDX[C]
```

This example first copies PIP and ERASE and PCFILE into Ram. Then it copies the data files all carrying the extensions .DAT and .NDX from A: disk into Ram. The final < is a carriage return to exit PIP. Next the PCFILE is run from Ram. Note that the submit file is not finished but suspended until you quit from PCFILE. When you have finished using your applications program PCFILE then PIP is again invoked and copies all the altered data files back to the A: disk. These data files are then erased from Ram using the 'C' option of ERASE which asks for confirmation before erasure.

You can also put messages on the screen in the middle of a SUBMIT operation using a feature of PIP that copies a text file to the screen.

```
PIP
<CON:A:MESSAGE.TXT
DIR B:
```

In this case the MESSAGE.TXT warns the user to put a disk in drive B: and press return. Note the absence of the lone < which forces the user to press return to end the PIP program and continue with the SUBMIT file's commands.

Now it's up to you to fit all the bells and whistles and make it an all singing all dancing operating system. A lot better than that lone intimidating A> prompt? If you wish to know more about I.C.P.U.G. and how we can help you with advice and our very technical newsletter please write to I.C.P.U.G. at 30 Brancaster Road, Newbury Park, Ilford, Essex, IG2 7EP.

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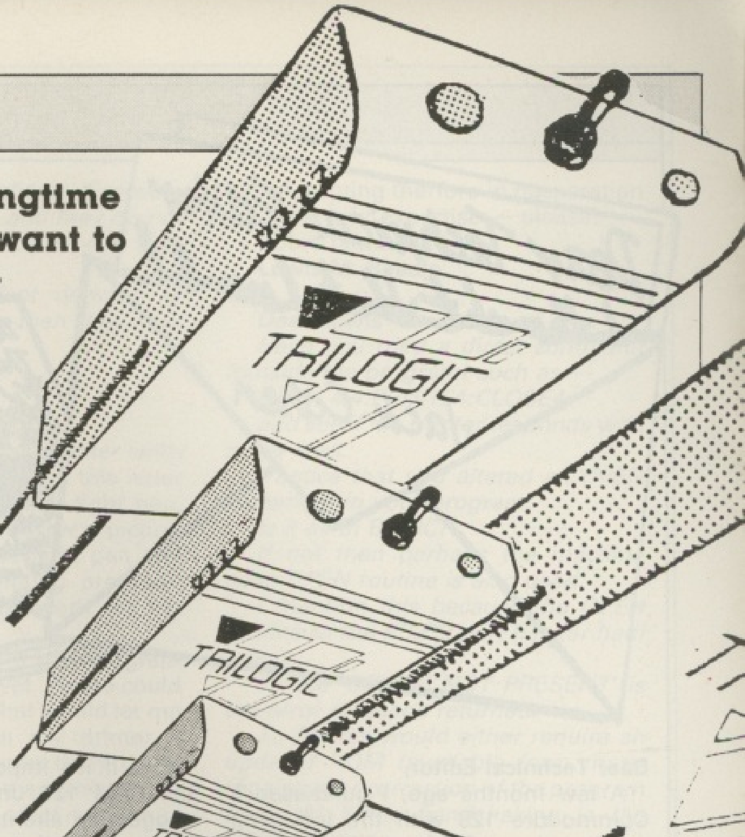
All you have to do is answer the following questions — All the answers can be found in the Trilogic advertisement in this C.C.I. of course you have to find them (really hard comp. isn't it?)



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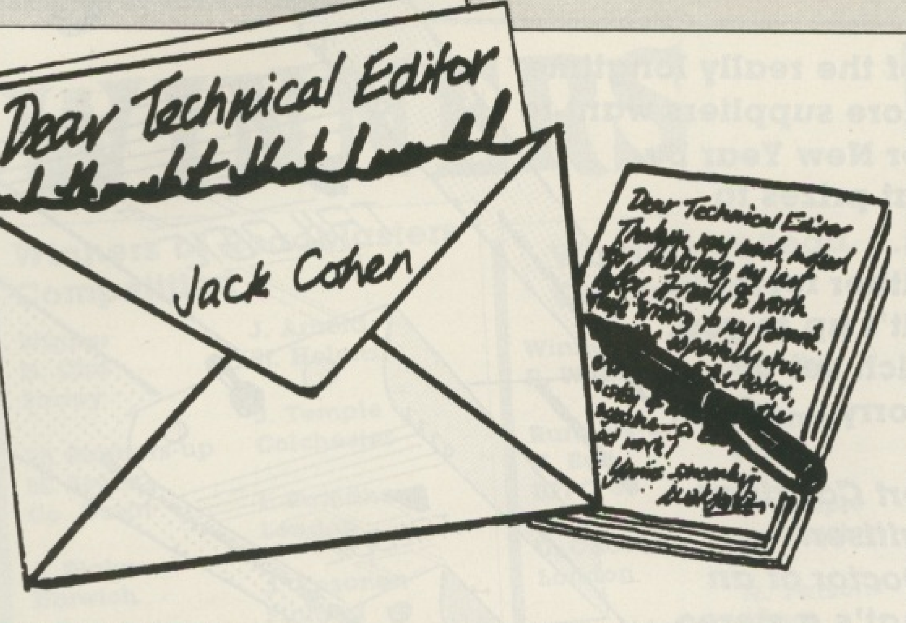


Dear Technical Editor,

A few months ago, I purchased a Commodore 128 with the following peripherals: CBM 1901 colour monitor, two (2) CBM 1571 disk drives, and a CBM MPS1200 dot-matrix printer. I have no expansion or utility cartridges attached to the computer. My main use for the computer is word processing. Currently, I use Wordstar version 3.3 (under CPM, and installed for an Osborne terminal). This is the first time I've had a Commodore, being something of an Apple fan for the last couple of years. I have always used Wordstar for writing and find it a thoroughly professional writing program.

My problem with Wordstar on the CBM 128 is that it works extremely slow, as compared to the same program on an Apple II Plus (with appropriate Z80 and 80-col. cards) or to an IBM-PC. Scrolling the document on screen, for example, with screen-up or screen-down key commands takes just about forever. When printing documents, the printhead always pauses for a few seconds after every line before starting on the next line, which makes printing under CPM very, very slow indeed. And why is it that the keys do not automatically repeat under CPM? Am I using the wrong CPM version (version 3.0 which came supplied with the computer)? Is ther any way at all to speed up my CBM 128's speed under CPM? Is there any cartridge or peripheral I can attach to the computer so that the performance of the computer measures up to the power of the software.

I really hope you can help me as I am beginning to feel that buying the Commodore 128 has been a big (and certainly expensive)! mistake. Thank you and hoping to hear from you soon.

Sincerely,
Jose Ibarra Angeles

P.S. If it's impossible to speed up the CBM 128 under CPM, can you suggest an alternative word processing program that runs under the CBM 128's native operating system? I've tried Word Writer and Vizawrite and have been disappointed. I need a word processor with powerful editing facilities, a WYSIWYG feature, spelling-back, mailmerge, smooth printing routines, and the capability to do automatic footnote numbering and insertion.

Dear Jose

The Z-80 board and CP/M as supplied with the C128 is an extra and was never intended by Commodore to be the main reason for anyone to buy the C128. For this reason I don't think you will improve speed by very much. Native mode is of course faster but you would need a WP designed around graphics in order to obtain WYSIWYG!

As you don't like VIZAWRITE then there is no WP with all the features you require.

VIZAWRITE is considered to be amongst the best available for the C128.

Dear Technical Editor,

I would refer to the programme given in the October 1988 issue namely "Bar Chart" by Frank Carson. I felt that this programme could be very useful to me on a day to day statistical basis and therefore, went through the tedious business of copying the programme given.

As you can see from the attached sample, the programme is running perfectly and it appears to save perfectly (Option 7), however, I am unable to call back and load the information saved. I have checked the entire programme line by line against a hard copy, particularly the area between 1620-1840 and find nothing apparently wrong. Perhaps I am doing something stupid in the way I am operating the programme and your help and guidance to this matter would be much appreciated.

On entering Option 1 the screen reads "enter name and data file to be loaded". This must be a Bar Data File "followed by a question mark". On inputing the name of the file, when saved, the disc drive rotates for a split second and a new question mark appears on the screen. It then continues to produce question marks endlessly and we cannot get out of the programme. Secondly, and a rather more disastrous matter from our point of view is that if we attempt to print the Bar Chart, Option 6, and fail to notice that the printer is not switched on, not only does the screen inform us that the devide is not present, error in line 3470, but we also lose all the information that we have spent some time putting in.

Are there any simple lines we can add to make this seemingly useful programme idiot proof?

Your faithfully,
Diamond Tooling Services,
West Sussex

Dear Diamond Tooling Services,

I have checked the SAVE and LOAD options and cannot find any errors other than one in line 1730.

This should have as part of the line PRINT B$ and not PRINT: b$ which will crash the program with 'Syntax error in line 1730' if the file name you enter does not exist on your diskette.

The only way to get the result that you describe is that the name of the BARDATA file exceeds 16 characters.

Therefore check that you are not adding spaces at the end of the name.

Retype the lines 1620-1840 in case of no visible corruption.

To remind you to switch on your printer add the following simple routine to your program and amend 1750 to:—

```
1570 IF S=5 THEN GOSUB 6000:
GOTO 2540
6000 SCNCLR:PRINT "Make sure
the printer is on then PRESS any key
to continue"
GET YY$:IF YY$="" THEN 6010
6020 RETURN
```

Dear Technical Editor,

In writing to you as my son is desperate for help, he is 14 years old and saved for a very long time to get himself a computer, he has got himself a COMMODORE 16 secondhand, now we find we can't get instructions for it or parts and I would be very grateful if you can help by telling us were he might be able to get what he wants. It's really heart breaking seeing him not knowing what to do. Please if you can help my son I'd be very grateful of any help. My son is a sick boy, so you can understand what this computer means to him.

Thanking you for any help.

Mrs. I. Wild

Dear Mrs. I. Wild

The BASIC used in the C16 can also be found in books on the PLUS4.

It is also related to the BASIC used in other Commodore computers (except the AMIGA).

You should be able to find books on CBM BASIC in most Public Libraries and this should help your son to start with simple programs.

He can also look at our printed program listings to get more ideas on how programs are written and put together.

To use the full range of the C16 you will need a book specific to the C16 (or PLUS4).

Dear Technical Editor,

Like P. WILSON (November Issue) I purchased a STAR LC-10C printer, but mine is not the colour version. I also have Mini Office II, and this letter is being produced on the word processor module.

I find the printer easy to use and the manual I thought was set out very well and I had little trouble following it. My congratulations to STAR. However, I have had a few problems concerning Mini Office II.

I have found the overall package very useful and user friendly but in conjunction with a STAR printer it poses problems. The word processor, spreadsheet and graphic modules work well with the printer. However, the database and label printer packages refuse to print out at all. Well they will print the first few files and then the printer stops and where is a message on the screen saying "PRINTER NOT PRESENT".

I wrote to Database Software and received a reply saying that the program was only designed to work on MPS 801 & 803 and Epsom printers via parellel or centronic scafe.

I feel that other readers who are looking to purchase a Star printer and already have a copy of Mini Office II should be warned of the above faults. After all when I bought my copy of Mini Office II it said nothing on the outer packaging saying what printers it would support.

Your sincerely,

C. King

Mr. King provides some useful information for readers.

I contacted Database Software technical department and they do not expect any modification to the software for some time.

If there is sufficient demand to make the mod viable then they may change their minds.

Dear Technical Editor,

I have a C16, a Citizen printer (with only 70mm paper on which this letter was printed) and a Trojan light pen. My problem is when I draw a picture on the screen with the light pen and then load up the printing program, this program will not work on my printer.

I have tried altering the program but have had no luck yet. Please could you find a program what would let me print my pictures on my printer. I enclose a s.a.e. for your reply if not printed in your great magazine.

Thanks again for a great mag (I buy it every month).

Yours faithfully,

Keith Wiffen

Dear Keith

The 40 column Citizen printer has a graphic mode 6(W) x 7 (H) with a line gap of 2.75 millimetres so you could program some sort of screen dump.

Refer to your printer manual for details of graphic characters.

If any readers have managed a passable screen dump then please write in with details for Keith.

Dear Technical Editor,

I would be very grateful for any help that you can give me concerning one of the all too frequent printer problems! For the past 3 years, for business purposes we have used a Commodore 128, 1570 Disk Drive and an Epson FX80 Printer via an FCC 8K Buffer. Serial Interface daisey chained to the Disk Drive — all this works fine, no problems at all.

In March 1988 we purchased a Commodoare 128D, when we connect the FCC Interface to the Serial Port of the 128D and using exactly the same program as we use on the 128, we get no response from the printer and the error message 'Device not Present'. We have found that by changing the 'Open' statement from Open 4,4,1 to Open 4,4 and then running the program we get the response 'Ready' (after about 1 Second) but the printer remains innactive.

The printer works O.K. via the User Port using a 'Commodore Connexion' interface, but as a business user we do miss the 8K Buffer when printing large numbers of invoices, etc. Obviously, having purchased the 128D in March we have had 7 frustrating months of experimenting therfore in desperation we seek your expertise — please!

Yours faithfully,

Lewis M. Beadle

Dear Lewis

Have you tried a direct command (outside the program) such as:—

OPEN 4,4:PRINT£4:CLOSE4

and see if the printer responds with a line feed.

I notice that you altered an OPEN statement in your program.

Is it all in BASIC?

If not then perhaps the machine code OPEN routine is also used.

I mention this because the OPEN routine to the RS232 port has (or had) a bug.

Where 'DEVICE NOT PRESENT' is the error message returned.

To fix this would either require an updated ROM (available from many repairers) or correction of the program to avoid X-line handshaking in the OPEN routine.

The routine returns with the status register carrybit set if the FCC buffer responded and clear if no response.

Unfortunately it should be the other way round.

Dear Technical Editor,

I have found a simple way to get the 64 to recognise SHIFT, CONTROL and COMMODORE Key. Location 653 holds 1 for SHIFT, 2 for COMMODORE Key and 3 for CONTROL. You can checkif any of these keys have been presed using this program:

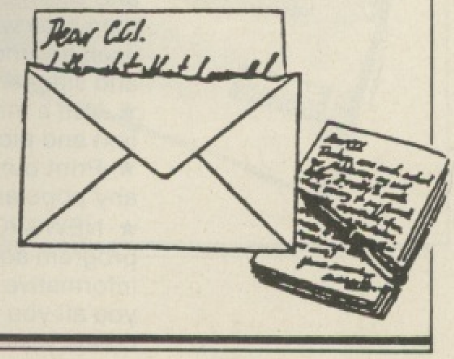
```
10 A=PEEK (653)
20 IF A=1 THEN PRINT "SHIFT"
30 IF A=2 THEN PRINT "COMMODORE KEY"
40 IF A=4 THEN PRINT "CONTROL"
50 GOTO 10
```

Also using POKE 808,234 disables run-stop, preventing users stopping your game. This also makes the listing unreadable. POKE 808,237 re-enables run-stop.

Yours sincerely,

Stephen Collie

Stephen gives more useful information for readers.



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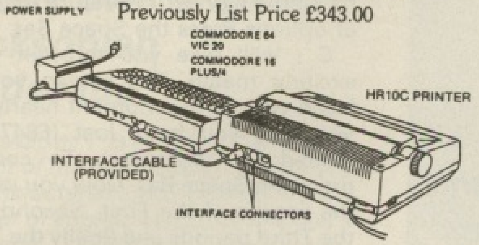

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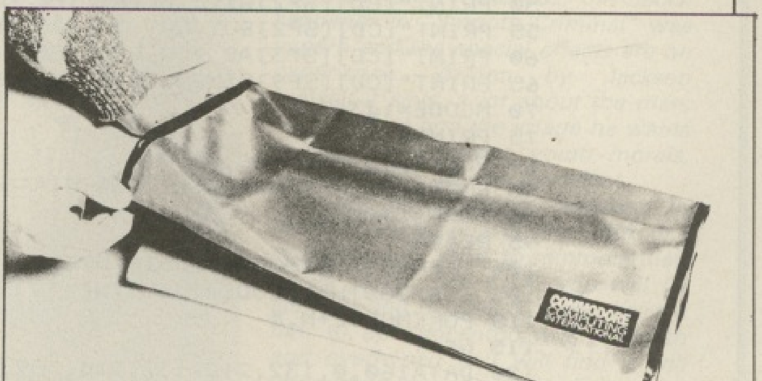

Ice Hockey

For the Plus/4

This should be of interest to anyone writing programs. The Input statement has all sorts of problems. This routine will enable you to specify where the input will be, and also what type and length of input to accept.

Christopher Doig

HOW TO PLAY:

Load and Run the first program (PART 1). Once READY. appears type SYS32768 as explained in the program.

The screen should now look as if it has just been switched on except the border, background and cursor colours are the same as in the program. Now Load and Run Part 2.

TYPE IN MANAGERS NAME: You have up to 14 characters to type in the name of your choice.

Pressing SPACE TO CONTINUE will set the scroll running. Hear you will see a list of options. Choose one by holding down the key (1-9) corresponding with the option you have chosen.

If you choose option 9 you have up to 8 characters for a new name.

Now into the main loop of the program.

* : Will allow you to enter in 14 characters for a new name. Once the name is entered the program will jump to option B to display the new name. SPACE will return you to the list of options.

A : Will display all the teams in a list. The team with the highest score being at the top of the list and the team with the lowest being at the bottom. PRESS THE SPACE BAR TO RETURN TO THE LIST OF OPTIONS.

B : Will display the : Managers name, The money you have in your account, A bank loan if you have one, How many matches you have played in and finally The Team Morale (87% being the highest). To return to the list of options Press the Space Bar.

C : Will take you through to an exciting match. The screen you are faced with at the moment nearly tells you that you have lost (£847) and gained (£---(whatever). To continue press the Space Bar. Now you will see the results of the First, Second, then the Third periods and finally the Totals of all three periods put together. Press the Space Bar.

You will now be back to the list of options. You will repeat option C until you run out of matches.

Straight after the totals of the final match the computer will take some time to search through the scores to find the highest. Once the winning team has been displayed Press Return.

The program will now run again and if everything went correctly the previous time you played you will have the same amount of money in your account.

NOTE: ICE HOCKEY will not run on the COMMODORE 16.

I advise the programs to be saved and verified before they are run.

```
2 FORT=1TO537:READA:TL=TL+A:NEXTT
3 IFTL<>63682THENPRINT"****[CTLB]DATA ERROR[CTLD]****":END
5 COLOR4,1:COLOR0,2,0:RESTORE120
10 PRINT"[CYN][CLR][CD3][SP4]THIS IS PART 1 OF ICE HOCKEY."
15 PRINT"[CD][SP3]ALL THAT THIS PART CONTAINS IS"
20 PRINT"[CD][SP3]THE MACHINE CODE NEEDED FOR PART"
25 PRINT"[CD][SP4]TWO - THE MAIN PART OBVIOUSLY."
30 PRINT"[CD][CTLB][DGRY][SP9]PRESS THE SPACE BAR."
35 IFPEEK(198)=60THEN40:ELSE35
40 PRINT"[CU][CYN][SP3]ONCE THIS PROGRAM HAS FINISHED"
45 PRINT"[CD][SP3]YOU MUST TYPE 'SYS32768'.THIS"
50 PRINT"[CD][SP2]WILL CLEAR THE MEMORY OF PROGRAM"
55 PRINT"[CD][SP2]BUT NOT THE ACCTUAL MACHINE CODE"
60 PRINT"[CD][SP3]AS YOU WILL SEE ONCE YOU HAVE"
65 PRINT"[CD][SP9]FINISHED BOTH PARTS.[DGRY]"
70 MCODE=14343
75 PRINTCHR$(8)
80 POKE52,59:POKE56,59
85 FORN=0TO30:READA:POKE1630+N,A:NEXT:SYS1630
90 FORN=1TO506
95 READA
100 IFA=999THENMCODE=14510:NEXT
105 IFA=888THENMCODE=14557:NEXT
110 POKEMCODE+N,A
115 NEXT
120 DATA160,0,132,212,132,214,169,208
125 DATA133,213,169,56,133,215,162,3
130 DATA177,212,145,214,200,208,249
135 DATA230,213,230,215,202,16,242,96
140 DATA24,24,52,68,76,146,226,0
145 DATA252,66,68,62,66,66,124,0
150 DATA62,70,194,192,192,224,126,0
```

continued on page 114

MOONWALKER

Andrew Demetriou strolls over a loony Jacksonian landscape

'Moonwalker' is quite literally a portrait of Michael Jackson. The entire epic characterises his inner-self from a number of angles, exploring Michael's emotions, affections, sensitivities, fantasies, his creativity and most notably his ego. However, conceited or not 'Moonwalker' contains some of the most stunning effects and sensational song and dance numbers ever put on film.

The movie begins on a retrospective theme. It is a brief summary of Jackson's accomplishments within the pop industry, 24 years of hits. We are taken through "The Jackson 5" to "Thriller" and "Bad" each step a new achievement and contribution. Its aim is to provoke our appreciation of the Michael Jackson concept and reinforces this affront by thousands of screaming fans (not only on film but within the cinema!). So that even if you are not an ardent Jackson fan you must acknowledge his level of public acceptance and talent.

Following this is the segment which everybody will be talking about. The re-shoot of the "Bad" video was absolutely brilliant; re-doing the entire piece with eight to ten-year-old children. The whole cast of the original cleverly matched member for member!

Michael is replaced by Brandon Adams who at barely nine year old produces remarkable dance sequences and with the help of sound effects, the parody of Jackson is hilarious!

The plot progresses to boost Jackson's popularity within the media, developing an image of Michael as a 'superbeing'. This, however, leads quite appropriately into "Smooth Criminal", starring Michael Jackson as the would-be super alien hero to save the children of the world form the influences of evil. Pretty dull stuff as far as the plot is concerned and Jackson's acting wasn't too convincing either. Never the less, the dance sequence in "Smooth Criminal" was superb and the special effects are an experience. Written by Jackson himself it says, a lot about the man, his fantasies and the image he wants to portray; innocènce, youth, morals, vitality and of course, his talent.

MICHAEL CONF
TO PET CHIMP

People have strong reactions to Michael Jackson and the film will probably only serve to reinforce their views. If you are a fan you will be stunned and delighted, if you believe him to be egocentric, wildly foolish and overhyped you will find it will strengthen your prejudice. Either way it is guaranteed to be a smash to line up early and don't be surprised while watching the film to find the young girl sitting next to you is jittering with excitement and the older woman in front has fainted!

A.D.

continued from page 114

```
155 DATA252,66,66,66,68,100,88,0
160 DATA252,70,64,112,64,70,124,0
165 DATA254,166,114,120,96,96,112,0
170 DATA62,66,192,192,198,194,126,0
175 DATA204,196,76,188,200,204,206,0
180 DATA120,48,56,56,24,56,44,0
185 DATA14,2,2,2,2,68,120,0
190 DATA198,76,88,112,72,92,206,0
195 DATA224,96,64,96,96,66,254,0
200 DATA198,170,146,146,130,130,130,0
205 DATA198,226,114,186,156,142,198,0
210 DATA56,68,130,130,130,130,124,0
215 DATA92,194,194,196,216,192,64,0
220 DATA124,130,130,130,138,134,126,0
225 DATA92,194,194,196,216,236,130,0
230 DATA62,66,152,100,2,132,248,0
235 DATA222,146,16,16,16,24,28,0
240 DATA140,132,132,132,132,140,118,0
245 DATA134,130,130,130,130,68,56,0
250 DATA130,130,130,146,146,170,198,0
255 DATA198,238,124,56,124,238,198,0
260 DATA194,70,68,40,16,48,112,0
265 DATA246,142,28,56,112,224,222,0,999
270 DATA124,130,130,0,130,130,124,0
275 DATA2,2,2,0,2,2,2,0
280 DATA124,2,2,124,128,128,124,0
285 DATA124,2,2,124,2,2,124,0
290 DATA130,130,130,124,2,2,2,0
295 DATA124,128,128,124,2,2,124,0
300 DATA124,128,128,124,130,130,124,0
305 DATA124,2,2,0,2,2,2,0
310 DATA124,130,130,124,130,130,124,0
315 DATA124,130,130,124,2,2,124,0,888
320 DATA255,255,255,255,255,255,255,255
325 DATA85,170,85,170,85,170,85,170
330 DATA85,171,87,175,95,191,127,255
335 DATA170,85,171,87,15,15,15,15
340 DATA170,85,170,85,0,0,0,0
345 DATA170,85,170,85,160,80,160,80
350 DATA160,80,160,80,160,80,160,80
355 DATA15,15,15,15,255,255,255,255
360 DATA160,80,160,80,175,95,191,127
365 DATA0,0,255,0,0,255,0,0
370 DATA0,0,1,1,1,1,0,0
375 DATA0,0,128,128,128,128,0,0
380 DATA31,63,52,50,63,63,48,31
385 DATA128,192,192,192,192,192,192,128
390 DATA15,48,127,255,239,239,239,239
395 DATA0,192,224,240,112,112,112,112
400 DATA0,0,255,255,255,255,0,0
405 DATA255,255,255,255,0,0,0,0
410 DATA255,254,253,250,0,0,0,0
415 DATA15,31,51,109,109,243,255,255
420 DATA192,248,252,254,255,255,255,254
425 DATA255,227,227,99,127,127,63,47
430 DATA128,64,32,255,145,209,206,128
435 DATA3,31,63,127,255,255,255,127
440 DATA240,248,204,182,182,207,255,255
445 DATA1,2,4,255,137,139,115,1
450 DATA255,199,199,198,254,254,252,244
```

Part Two:

```
5 PRINTCHR$(8)
10 POKE65298,192:POKE65299,(PEEK(65299)AND3)OR56
15 COLOR4,1:COLOR0,2,0:ACC=2000:AP=1:LOAN=0
20 INPUT"[LGRY][CLR][CD12]TYPE IN MANAGERS NAME";MGR$
25 MGR$=LEFT$(MGR$,14)
30 COLOR1,2,3
35 PRINT"[CLR]─────────────────────────────────────────────"
```

```
40 FORN=1TO23
45 PRINT"────────────────────────────────────────"
50 NEXTN
55 COLOR1,2,5
60 PRINT"[HOM][CD][CR5]♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠♠|"
65 FORT=1TO15
70 PRINT"[CR5]♠[SP28]-"
75 NEXTT
80 PRINT"[CR5]|─────────────────────────────"
85 PRINT"[CD][CR]‾──────────‾[CR]‾──────────────────────────"
90 PRINT"[CR]-[SP8][REV]▌[CR][OFF]-[SP25][REV]▌"
95 PRINT"[CR]|▄▄▄▄▄▄▄▄|[CR][OFF]-[SP25][REV]▌"
100 PRINT"[CR12]-[SP25][REV]▌"
105 PRINT"[CR12]|▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄| "
110 FORN=0TO39:POKE2048+(40*24)+N,49:NEXT
115 FORN=0TO39:POKE3072+(40*24)+N,160:NEXT
120 PRINT"[HOM][CD20][CR2][SP8]"
125 T$(1)="[ORNG]1:MURRAYFIELD ":N$(1)=" RACERS "
130 T$(2)="[LRED]2:FIFE ":N$(2)=" FLYERS "
135 T$(3)="[CYN]3:GLASGOW ":N$(3)=" EAGLES "
140 T$(4)="[PUR]4:DUNDEE ":N$(4)="TANKERS "
145 T$(5)="[GRN]5:CLEVELAND ":N$(5)="BOMBERS "
150 T$(6)="[BLU]6:NOTTINGHAM ":N$(6)="PANTHERS"
155 T$(7)="[MGRY]7:DURHAM ":N$(7)="[SP2]WASPS "
160 T$(8)="[DGRY]8:WHITLEY ":N$(8)="WARRIORS"
165 FORN=1TO8:TEAM$(N)=T$(N)+N$(N):NEXT
170 SCR$="[SP20]THE FOLLOWING 8 TEAMS LISTED ARE IN ORDER OF 1 TO 8.."
175 OLL$="...."
180 FORT=1TO8:OLL$=OLL$+" "+TEAM$(T):NEXTT:OLL$=OLL$+"[ORNG] .9:YOUR OWN "
185 SCROLL$=SCR$+OLL$
190 COLOR1,12,5:SCBRD=10:MA=0:RET=0:TM=0:TEAM=8
195 PRINT"[HOM][CD2]"
200 PRINTTAB(14)"●●● ●●● ●●●"
205 PRINTTAB(15)"-[SP2]-[SP3]-┐"
210 PRINTTAB(14)"── ── ‾▄▄"
215 PRINT
220 PRINTTAB(8)"- - -●- -●● - - -●● [REV]◥▁◤"
225 PRINTTAB(8)"── -▄- -[SP3]─[SP2]-┐[SP2]◣▁◢"
230 PRINTTAB(8)"- - ── ── - - -▄▄[SP2]- "
235 PRINT"[CYN]"
240 PRINTTAB(9)"BY:[SP2]CHRISTOPHER DOIG"
245 PRINT
250 COLOR1,2,1:PRINTTAB(11)"[CTL8]SPACE TO CONTINUE."
255 PRINTTAB(8)"[CD2]WRITTEN IN MAY/JUNE 1988."
260 IFPEEK(198)=60THEN265:ELSE260
265 FORT=1TOLEN(SCROLL$)
270 N=N+1:IFN=17THENN=1
275 COLOR1,N,INT(7*RND(1)):PRINT"[HOM][CD13][CR11][SP3]SELECT 1-9.[SP4]"
280 PRINT"[HOM][CD14][CR10]";MID$(SCROLL$,T,20)
285 GETP$:IFVAL(P$)=NTHEN300
290 NEXTT
295 GOTO265
300 FORN=1TO8
305 IFVAL(P$)=NTHENP$=N$(N):CHECK=1:Z=N
310 NEXTN
315 IFCHECK<>1THEN320:ELSE345
320 PRINT"[HOM][CD20][CR13]"+CHR$(27)+CHR$(84)
325 PRINT"[CD][CR24]"+CHR$(27)+CHR$(66)
330 PRINT"[HOM][WHT]TYPE IN YOUR TEAM NAME."
335 INPUTP$:Z=9:PRINT"[CLR]":TEAM=9
340 IFLEN(P$)>=8THENP$=LEFT$(P$,8):ELSEQ=8-LEN(P$):FORT=1TOQ:P$=P$+" ":NEXTT
345 OPPO=INT(8*RND(1))+1
350 FORN=1TO8
355 IFOPPO=NTHENB$=N$(N):V=N:CHECK=2
360 NEXTN
365 IFZ=VTHEN345
370 IFCHECK<>2THEN345
375 IFREP=1THENRETURN:ELSEREP=1
380 TEAMS$(1)="[MGRY]MURRAYFIELD RACERS "
385 TEAMS$(2)="[BLU]FIFE FLYERS[SP8]"
```

cont. on next page

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```
390 TEAMS$(3)="[RED]GLASGOW EAGLES[SP5]"
395 TEAMS$(4)="[CYN]DUNDEE TANKERS[SP5]"
400 TEAMS$(5)="[PUR]CLEVELAND BOMBERS[SP2]"
405 TEAMS$(6)="[ORNG]NOTTINGHAM PANTHERS"
410 TEAMS$(7)="[DGRY]DURHAM WASPS[SP7]"
415 TEAMS$(8)="[LGRY]WHITLY WARRIORS[SP4]"
420 IFTEAM=9THENTEAMS$(9)="[YEL]"+P$+"[SP11]"
425 PRINT"[HOM2][CD]"
430 FORT=1TO15:PRINT"[CR6][SP28]":NEXTT
435 PRINT"[WHT][HOM][CD20][CR2]"P$
440 PRINT"[RED][HOM][CD3][CR10]♥| [SP16][BLU]○⁘"
445 PRINT"[RED][CR10]╭X[SP16][BLU] |♦"
450 PRINT"[CD][CYN][CR11]* - NEW MANAGEMENT"
455 PRINT"[CD][CR11]A - TABLE"
460 PRINT"[CD][CR11]B - INFORMATION"
465 PRINT"[CD][CR11]C - CONTINUE"
470 IFPEEK(198)=60THEN425
475 IFPEEK(198)=49THEN845
480 IFPEEK(198)=10THEN510
485 IFPEEK(198)=28THEN555
490 IFPEEK(198)=20THEN610
495 IFACC<847THEN870
500 IFLOAN=1ANDACC>5000THENLN=LN-1:ACC=ACC-1:IFLN=0THENLOAN=0
505 GOTO470
510 PRINT"[HOM][CD4]"
515 FORT=1TO11:PRINT"[CR6][SP28]":NEXTT
520 PRINT"[HOM][CD5][CR16]TABLE"
525 PRINT"[CR16]╲ˋˋˋˋˋˊ[LRED]"
530 BRD=0:FORT=SCBRDTO0STEP-1:FORN=1TOTEAM
535 IFT=P(N)THENPRINT"[CR8]"TEAMS$(N)"[SP2]"P(N):BRD=BRD+1
540 IFBRD=9THEN550
545 NEXTN,T
550 GOTO470
555 PRINT"[HOM][CD4]":FORT=1TO12:PRINT"[CR6][SP28]":NEXTT
560 PRINT"[HOM][CD5][CR14]INFORMATION"
565 PRINT"[CR13]╲ˋˋˋˋˋˋˋˋˋˋˋˋˊ"
570 PRINT"[CD][CR8]MANAGER : "MGR$
575 IFLOAN=1THENPRINT"[CD][CR8]BANK LOAN: "LN
580 IFLOAN=1THENPRINT"[CU][CR19]£"
585 PRINT"[CD][CR8]ACCOUNT : "ACC
590 PRINT"[CU][CR18]£"
595 PRINT"[CD][CR8]MATCHES :"MA
600 PRINT"[CD][CR8]TEAM MORALE :";:TM=INT(RND(1)*10):PRINTINT(TM*9.7)"[CL]%"
605 GOTO470
610 PRINT"[HOM][CD4]":FORT=1TO12:PRINT"[CR6][SP28]":NEXTT
615 PRINT"[HOM][CD5][CR13]FINANTIAL SIDE"
620 PRINT"[CR12]╲ˋˋˋˋˋˋˋˋˋˋˋˋˋˋˋˋˊ"
625 PRINT"[CD][CR7]THE RINKS OVERHEADS AMOUNTS"
630 PRINT"[CD][CR7]TO A GRAND TOTAL OF £847."
635 PRINT"[CD][CR7]WHICH WILL BE REDUCED FROM"
640 PRINT"[CD][CR7]YOUR PRESENT ACCOUNT."
645 PRINT"[CD][CR7][SP7]INCOME : ";:IN=INT(RND(1)*2000)+100:PRINTIN:ACC=(ACC-847
)+IN
650 PRINT"[CU][CR23]£"
655 IFPEEK(198)=60THENGOSUB345:ELSE655
660 PRINT"[HOM][CD4]":FORT=1TO12:PRINT"[CR6][SP28]":NEXTT
665 PRINT"[ORNG][HOM][CD6][CR7]L\L\L\L\L\L\L\L\L\L\L\L\L\L\L\L\L\L\L\"
670 PRINT"[CYN][CR7]/T/T/T/T/T/T/T/T/T/T/T/T/T/T"
675 PRINT"[ORNG][CR7]\L\L\L\L\L\L\L\L\L\L\L\L\L\L"
680 PRINT"[CYN][CR7]Γ/T/T/T/T/T/T/T/T/T/T/T/T/T/"
685 PRINT"[RED][CR7]────────────────────────────"
690 PRINT"[BLU][CD][CR7]"P$"[MGRY][SP2]VERSES[SP2][LGRN]"B$
695 FORN=1TO3
700 PRINT"[CD3][CR13]AFTER PERIOD"AP
705 PRINT"[CU3][CR8]";:P=INT(RND(1)*(TM/2)):PRINTP:TP=TP+P
710 PRINT"[CU][CR27]";:B=INT(RND(1)*(7/2)):PRINTB"[CU2]":TB=TB+B
715 FORT=1TO500:NEXTT:AP=AP+1:NEXTN
720 PRINT"[CD3][CR13][SP4]TOTALS[SP4]"
725 PRINT"[CU3][CR8]"TP
730 PRINT"[CU][CR27]"TB
```

```
735 IFPEEK(198)=60THEN740:ELSE735
740 FORT=1TOTEAM
745 IFT=VTHENP(T)=P(T)+TB
750 IFT=ZTHENP(T)=P(T)+TP
755 IFT<>ZANDT<>VTHENP(T)=P(T)+INT(RND(1)*9)
760 NEXTT:TP=0:TB=0:AP=1:MA=MA+1:SCBRD=SCBRD+10
765 IFMA=20THEN775
770 GOTO425
775 PRINT"[HOM][CD4]":FORT=1TO12:PRINT"[CR6][SP28]":NEXTT
780 PRINT"[HOM][CD8][CR11]WHO WON THE ANNUAL"
785 PRINT"[CD][CR16]TROPHY?"
790 PRINT"[DGRY][CD][CR12]WAIT TO FIND OUT"
795 FORT=200TO0STEP-1:FORN=1TOTEAM
800 IFP(N)=TTHENWIN$=TEAM$(N):GOTO810
805 NEXTN,T
810 PRINT"[HOM][CD4]":FORT=1TO12:PRINT"[CR6][SP28]":NEXTT
815 PRINT"[HOM][CD6][CR12][CTL8]"WIN$
820 PRINT"[CD][CYN][CR10]WON THE ANNUAL TROPHY"
825 IFTEAM$(Z)=WIN$THENPRINT"[CD5][CR15][CTL8]YOUR TEAM!"
830 FORT=1TO5000:NEXTT
835 FORY=1TOTEAM:P(Y)=0:NEXTY
840 PRINT"[HOM][CD2]":FORT=1TO14:PRINT"[CR6][SP28]":NEXTT:GOTO190
845 PRINT"[HOM][CD20][CR13]"+CHR$(27)+CHR$(84)
850 PRINT"[CD][CR24]"+CHR$(27)+CHR$(66)
855 PRINT"ENTER THE NEW NAME:"
860 INPUTMGR$:MGR$=LEFT$(MGR$,14)
865 PRINT"[CD3][HOM2]":GOTO555
870 PRINT"[HOM][CD2]":FORT=1TO14:PRINT"[CR6][SP28]":NEXTT
875 IFLOAN=1THEN925
880 PRINT"[HOM][CD3][CR8]IT SEEMS YOU PUSHED YOUR"
885 PRINT"[CD][CR8]LUCK TOO FAR AND RAN OUT"
890 PRINT"[CD][CR8]OF MONEY.THEREFORE YOU"
895 PRINT"[CD][CR8]WILL HAVE TO TAKE OUT"
900 PRINT"[CD][CR8]A LOAN OF £5000 AND PAY"
905 PRINT"[CD][CR8]IT OFF WHEN YOU CAN."
910 PRINT"[CTL8][CD][CR12][WHT]PRESS SPACE BAR"
915 IFPEEK(198)=60THEN920:ELSE915
920 LOAN=1:LN=5000:ACC=ACC+5000:GOTO425
925 PRINT"[HOM][DGRY][CD3][CR12]YOU'VE BLOWN IT!"
930 PRINT"[CD][CR7]YOU HAVEN'T ENOUGH MONEY"
935 PRINT"[CD][CR7]TO CONTINUE WITH.YOU ARE"
940 PRINT"[CD][CR7]ADVISED TO MOVE ON AND"
945 PRINT"[CD][CR7]TRY YOUR LUCK WITH A"
950 PRINT"[CD][CR7]DIFFERENT TEAM."
955 PRINT"[CD][CR8][BLU][CTL8]PRESS RETURN TO RESTART"
960 IFPEEK(198)=1THENCLR:RUN:ELSE960
```

★ Program Submission Procedure ★

DO NOT submit any program or routine that you do not either own or have property authority to do so.

ALWAYS include your name, address and the date on all material and any enclosures.

Do not forget to make it clear exactly which computer/s your program or article is applicable to.

Include ROM or DOS versions wherever they are pertinent.

If you have to submit work which is hand-written then you must make sure it is printed clearly.

Number all pages.

Never use staples. Use paperclips if necessary.

If you are saving your program to tape then save it AT LEAST twice on each side.

When you save a program on disk save it twice and call the second file "BACKUP".

Remember to label all tapes and disks with your name and the title of the program. Label tape or disk with your name and the name or title of the program.

Always ensure that disks are well packaged. They should ideally be sent in a commercial disk mailer or at least packed between two pieces of hardboard or rigid plastic.

Please allow at least 8 weeks for acknowledgement as all programs have to be thoroughly tested and made into a suitable format.

Enclose a self-addressed stamped envelope or package if you would like your program to be returned.

★ Programming tips ★

If you can, use CHR$(x) type commands instead of those hard to read graphic symbols.

If necessary renumber your program on completion a many readers use auto number utilities to ease typing in.

Try to keep instructions within the program itself at a sensible level. You can expand on them within the accompany text if necessary.

TEST your programs before submitting them or even better get a friend to test them for you.

If a program contains machine code data please use decimal and not hex as there are fewer digits to be confused. Try and keep the same number of data statements in each line. Please add some form of error checking if your program contains more than five lines of data.

Blackjack

by Mark Manning Part Two: From CCI DEC

```
1370 DATA 18,18,1C,0F,07,00,00,00,18,18,38,F0,E0,00,00,00, EF
1380 DATA C0,C0,C0,C0,C0,C0,FF,FF,C0,E0,70,38,1C,0E,07,03, E9
1390 DATA 03,07,0E,1C,38,70,E0,C0,FF,FF,C0,C0,C0,C0,C0,C0, E3
1400 DATA FF,FF,03,03,03,03,03,03,00,3C,7E,7E,7E,7E,3C,00, 63
1410 DATA 00,00,00,00,00,FF,FF,00,36,7F,7F,7F,3E,1C,08,00, 76
1420 DATA 60,60,60,60,60,60,60,60,00,00,00,07,0F,1C,18,18, D8
1430 DATA C3,E7,7E,3C,3C,7E,E7,C3,00,3C,7E,66,66,7E,3C,00, E0
1440 DATA 18,18,66,66,18,18,3C,00,06,06,06,06,06,06,06,06, 78
1450 DATA 08,1C,3E,7F,3E,1C,08,00,18,18,18,FF,FF,18,18,18, 49
1460 DATA C0,C0,30,30,C0,C0,30,30,18,18,18,18,18,18,18,18, C9
1470 DATA 00,00,03,3E,76,36,36,00,FF,7F,3F,1F,0F,07,03,01, E2
1480 DATA 00,00,00,00,00,00,00,00,F0,F0,F0,F0,F0,F0,F0,F0, 62
1490 DATA 00,00,00,00,FF,FF,FF,FF,FF,00,00,00,00,00,00,00, 5D
1500 DATA 00,00,00,00,00,00,00,FF,C0,C0,C0,C0,C0,C0,C0,C0, 5C
1510 DATA CC,CC,33,33,CC,CC,33,33,03,03,03,03,03,03,03,03, 70
1520 DATA 00,00,00,00,CC,CC,33,33,FF,FE,FC,F8,F0,E0,C0,80, 6F
1530 DATA 03,03,03,03,03,03,03,03,18,18,18,1F,1F,18,18,18, 55
1540 DATA 00,00,00,00,0F,0F,0F,0F,18,18,18,1F,1F,00,00,00, 17
1550 DATA 00,00,00,F8,F8,18,18,18,00,00,00,00,00,00,FF,FF, 4D
1560 DATA 00,00,00,1F,1F,18,18,18,18,18,18,FF,FF,00,00,00, 19
1570 DATA 00,00,00,FF,FF,18,18,18,18,18,18,F8,F8,18,18,18, DF
1580 DATA C0,C0,C0,C0,C0,C0,C0,C0,E0,E0,E0,E0,E0,E0,E0,E0, DF
1590 DATA 07,07,07,07,07,07,07,07,FF,FF,00,00,00,00,00,00, 15
1600 DATA FF,FF,FF,00,00,00,00,00,00,00,00,00,00,FF,FF,FF, 0F
1610 DATA 03,03,03,03,03,03,FF,FF,00,00,00,00,F0,F0,F0,F0, DF
1620 DATA 0F,0F,0F,0F,00,00,00,00,18,18,18,F8,F8,00,00,00, 53
1630 DATA F0,F0,F0,F0,00,00,00,00,F0,F0,F0,F0,0F,0F,0F,0F, 0F
1640 DATA 01,01,07,01,07,0D,19,19,80,80,E0,80,E0,B0,98,98, 7F
1650 DATA 19,0D,07,01,07,0D,19,19,98,B0,E0,80,E0,B0,98,98, 5B
1660 DATA 00,00,00,03,07,0D,19,19,00,00,00,C0,E0,B0,98,98, 24
1670 DATA 19,19,0D,07,01,07,01,01,98,98,B0,E0,80,E0,80,80, 94
1680 DATA 19,19,0D,07,01,07,0D,19,98,98,B0,E0,80,E0,B0,98, 70
1690 DATA 19,19,0D,07,03,00,00,00,98,98,B0,E0,C0,00,00,00, 39
1700 DATA 1F,0D,0C,06,07,1B,3D,3E,F8,B0,30,60,E0,D8,BC,7C, 3C
1710 DATA 3E,3D,1B,07,06,0C,0D,1F,7C,BC,D8,E0,60,30,B0,F8, 3F
1720 DATA 00,00,00,00,03,0F,1F,3F,3F,1F,0F,03,C0,F0,F8,FC, C3
1730 DATA FC,F8,F0,C0,00,00,00,00,00,7E,18,18,18,1C,18,18, 79
1740 DATA 00,7E,06,0C,30,60,66,3C,00,3C,66,60,38,60,66,3C, 77
1750 DATA 00,60,60,FE,66,78,70,60,00,3C,66,60,60,3E,06,7E, 07
1760 DATA 00,3C,66,66,3E,06,66,3C,00,18,18,18,18,30,66,7E, 69
1770 DATA 00,3C,66,66,3C,66,66,3C,00,3C,66,60,7C,66,66,3C, 3B
1780 DATA 00,1C,36,30,30,30,30,78,00,66,36,1E,0E,1E,36,66, 47
1790 DATA 00,70,3C,66,66,66,66,3C,00,18,18,18,18,18,18,7E, D5
1800 DATA 00,7C,38,FE,FE,7C,38,10,00,10,38,7C,FE,FE,FE,6C, 73
1810 DATA 00,3C,18,18,66,66,18,18,00,10,38,7C,FE,7C,38,10, 61
1820 DATA 00,66,66,66,7E,66,3C,18,FB,C3,C3,FB,1B,1B,FB,00, 78
1830 DATA F7,36,36,37,36,36,F6,00,EF,03,03,C3,03,03,03,00, 35
1840 DATA C0,00,00,00,00,00,00,00,CD,CD,CD,FD,CD,CD,CD,00, C0
1850 DATA FB,9B,9B,FB,9B,9B,9B,00,E3,1B,1B,1B,E3,33,1B,00, 22
1860 DATA E0,30,30,30,30,30,E0,00,FF,FF,FF,81,FF,FF,FF,FF, 4C
1870 DATA FF,FF,FF,FF,FF,E7,E7,FF,FF,FC,F9,F3,E7,CF,9F,FF, 4F
1880 DATA C3,99,91,89,99,99,C3,FF,E7,E7,C7,E7,E7,E7,81,FF, 83
1890 DATA C3,99,F9,F3,CF,9F,81,FF,C3,99,F9,E3,F9,99,C3,FF, 45
1900 DATA F9,F1,E1,99,80,F9,F9,FF,81,9F,83,F9,F9,99,C3,FF, 0A
1910 DATA C3,99,9F,83,99,99,C3,FF,81,99,F3,E7,E7,E7,E7,FF, 24
1920 DATA C3,99,99,C3,99,99,C3,FF,C3,99,99,C1,F9,99,C3,FF, DA
1930 DATA FF,FF,E7,FF,FF,E7,FF,FF,FF,FF,E7,FF,FF,E7,E7,CF, 22
1940 DATA F1,E7,CF,9F,CF,E7,F1,FF,FF,FF,81,FF,81,FF,FF,FF, 0A
1950 DATA 8F,E7,F3,F9,F3,E7,8F,FF,C3,99,F9,F3,E7,FF,E7,FF, E8
```

```
1960 DATA FF,FF,FF,00,00,FF,FF,FF,F7,E3,C1,80,80,E3,C1,FF, 20
1970 DATA E7,E7,E7,E7,E7,E7,E7,E7,FF,FF,FF,00,00,FF,FF,FF, 52
1980 DATA FF,FF,00,00,FF,FF,FF,FF,FF,00,00,FF,FF,FF,FF,FF, 46
1990 DATA FF,FF,FF,FF,00,00,FF,FF,CF,CF,CF,CF,CF,CF,CF,CF, B8
2000 DATA F3,F3,F3,F3,F3,F3,F3,F3,FF,FF,FF,1F,0F,C7,E7,E7, 10
2010 DATA E7,E7,E3,F0,F8,FF,FF,FF,E7,E7,C7,0F,1F,FF,FF,FF, 66
2020 DATA 3F,3F,3F,3F,3F,3F,00,00,3F,1F,8F,C7,E3,F1,F8,FC, 5C
2030 DATA FC,F8,F1,E3,C7,8F,1F,3F,00,00,3F,3F,3F,3F,3F,3F, 52
2040 DATA 00,00,FC,FC,FC,FC,FC,FC,FF,C3,81,81,81,81,C3,FF, C2
2050 DATA FF,FF,FF,FF,FF,00,00,FF,C9,80,80,80,C1,E3,F7,FF, 9F
2060 DATA 9F,9F,9F,9F,9F,9F,9F,9F,FF,FF,FF,F8,F0,E3,E7,E7, 2D
2070 DATA 3C,18,81,C3,C3,81,18,3C,FF,C3,81,99,99,81,C3,FF, 15
2080 DATA E7,E7,99,99,E7,E7,C3,FF,F9,F9,F9,F9,F9,F9,F9,F9, 6D
2090 DATA F7,E3,C1,80,C1,E3,F7,FF,E7,E7,E7,00,00,E7,E7,E7, 8C
2100 DATA 3F,3F,CF,CF,3F,3F,CF,CF,E7,E7,E7,E7,E7,E7,E7,E7, FC
2110 DATA FF,FF,FC,C1,89,C9,C9,FF,00,80,C0,E0,F0,F8,FC,FE, D3
2120 DATA FF,FF,FF,FF,FF,FF,FF,FF,0F,0F,0F,0F,0F,0F,0F,0F, 43
2130 DATA FF,FF,FF,FF,00,00,00,00,00,FF,FF,FF,FF,FF,FF,FF, 38
2140 DATA FF,FF,FF,FF,FF,FF,FF,00,3F,3F,3F,3F,3F,3F,3F,3F, 29
2150 DATA 33,33,CC,CC,33,33,CC,CC,FC,FC,FC,FC,FC,FC,FC,FC, 05
2160 DATA FF,FF,FF,FF,33,33,CC,CC,00,01,03,07,0F,1F,3F,7F, F6
2170 DATA FC,FC,FC,FC,FC,FC,FC,FC,E7,E7,E7,E0,E0,E7,E7,E7, 00
2180 DATA FF,FF,FF,FF,F0,F0,F0,F0,E7,E7,E7,E0,E0,FF,FF,FF, 2E
2190 DATA FF,FF,FF,07,07,E7,E7,E7,FF,FF,FF,FF,FF,FF,00,00, E8
2200 DATA FF,FF,FF,E0,E0,E7,E7,E7,E7,E7,E7,00,00,FF,FF,FF, 0C
2210 DATA FF,FF,FF,00,00,E7,E7,E7,E7,E7,E7,07,07,E7,E7,E7, 36
2220 DATA 3F,3F,3F,3F,3F,3F,3F,3F,1F,1F,1F,1F,1F,1F,1F,1F, 26
2230 DATA F8,F8,F8,F8,F8,F8,F8,F8,00,00,FF,FF,FF,FF,FF,FF, E0
2240 DATA 00,00,00,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,00,00,00, D6
2250 DATA FC,FC,FC,FC,FC,FC,00,00,FF,FF,FF,FF,0F,0F,0F,0F, F6
2260 DATA F0,F0,F0,F0,FF,FF,FF,FF,E7,E7,E7,07,07,FF,FF,FF, 72
2270 DATA 0F,0F,0F,0F,FF,FF,FF,FF,0F,0F,0F,0F,F0,F0,F0,F0, A6
```

```
  1 REM BJ.DAT.1
  2 :
  3 REM   GENERATED BY DATAGEN
  4 REM
  5 REM    COPYRIGHT (C) 1987
  6 REM
  7 REM   BY MARK I MANNING IV
  8 :
  9 :
 10 M=32768:L=990:I=10:PRINTCHR$(147)
 20 FORP=1TO257:L=L+I:FORN=0TO15
 30 READA$:GOSUB100
 40 POKEM+N,D:CK=CK+D
 50 NEXT:READA$:GOSUB100
 60 CK=CK-(INT(CK/256)*256):IFCK=DTHEN90
 70 A$=CHR$(147)+"LIST"+STR$(L):PRINTA$
 80 POKE631,19:POKE632,13:POKE198,2:END
 90 PRINTL"[SP2]OK":M=M+16:NEXT:GOTO170
 100 LB=ASC(RIGHT$(A$,1))-48
 110 HB=ASC( LEFT$(A$,1))-48
 120 IFLB>9THENLB=LB-7
 130 IFHB>9THENHB=HB-7
 140 D=HB*16+LB:RETURN
 150 :
 160 :
 170 CLR:LOAD"BJ.DAT.2",8
```

continued on page 120

continued from page 119

```
 180 :
 190 :
 1000 DATA 00,20,CD,BD,20,BD,7D,20,0B,7F,20,20,7F,20,23,7F,  2F
 1010 DATA 4C,20,7F,C9,20,90,1B,C9,40,90,24,C9,60,90,19,C9,  06
 1020 DATA 80,90,19,C9,A0,90,0B,C9,C0,90,0D,C9,FF,90,06,A9,  60
 1030 DATA 5E,60,A9,20,60,29,7F,60,38,E9,40,60,38,E9,20,60,  B1
 1040 DATA A9,07,85,FC,A9,C0,85,FB,A0,27,B9,DA,80,91,FB,88,  B9
 1050 DATA 10,F8,AD,16,D0,48,29,F8,0D,02,81,AA,A9,05,48,A9,  96
 1060 DATA F2,A0,00,CD,12,D0,D0,FB,8E,16,D0,8C,21,D0,A9,01,  3D
 1070 DATA CD,12,D0,D0,FB,68,8D,21,D0,68,8D,16,D0,A9,01,8D,  AF
 1080 DATA 19,D0,AD,02,81,D0,05,20,95,80,A9,08,38,E9,02,8D,  33
 1090 DATA 02,81,4C,31,EA,A0,00,B9,DB,80,99,DA,80,C8,C0,27,  73
 1100 DATA D0,F5,AD,03,81,F0,04,CE,03,81,60,A0,00,AD,04,81,  E1
 1110 DATA 85,FD,AD,05,81,85,FE,B1,FD,20,13,80,8D,01,81,EE,  77
 1120 DATA 04,81,D0,03,EE,05,81,AD,04,81,CD,9F,8F,D0,DB,AD,  C8
 1130 DATA 05,81,CD,A0,8F,D0,D3,4C,AB,71,1C,39,09,D0,50,52,  25
 1140 DATA 49,4E,54,26,39,03,30,39,08,84,C0,18,16,E7,3A,39,  AF
 1150 DATA 03,44,39,20,D0,50,52,49,4E,D4,56,41,4C,55,C5,49,  72
 1160 DATA CE,43,00,00,00,00,50,52,45,53,45,4E,54,49,4E,47,  82
 1170 DATA 2E,2E,2E,2E,20,20,20,20,20,20,20,42,4C,41,43,4B,  77
 1180 DATA 4A,41,43,4B,21,21,21,20,20,20,20,20,20,20,2D,2D,  2D
 1190 DATA 43,41,53,49,4E,4F,20,52,55,4C,45,53,20,4F,2E,4B,  7D
 1200 DATA 2E,2D,2D,20,20,20,20,20,41,52,46,2E,2E,2E,20,20,  48
 1210 DATA 20,41,52,46,2E,2E,2E,20,20,20,20,20,20,20,20,4F,  1A
 1220 DATA 52,2E,2E,2E,20,48,4F,57,20,54,4F,20,4C,4F,4F,53,  24
 1230 DATA 45,20,41,4E,44,20,53,54,49,4C,4C,20,4B,45,45,50,  49
 1240 DATA 20,41,4C,4C,20,59,4F,55,52,20,4D,4F,4E,45,59,21,  7A
 1250 DATA 21,21,20,20,20,20,20,20,20,20,50,52,4F,47,52,  66
 1260 DATA 41,4D,4D,45,44,20,42,59,20,20,2D,2D,4D,41,52,4B,  4A
 1270 DATA 20,49,20,4D,41,4E,4E,49,4E,47,20,49,56,2D,2D,20,  14
 1280 DATA 20,20,20,20,20,20,20,20,20,53,43,52,4F,4C,4C,20,  23
 1290 DATA 52,4F,55,54,49,4E,45,20,41,44,41,50,54,45,44,20,  7C
 1300 DATA 46,52,4F,4D,20,50,52,4F,47,52,41,4D,20,42,59,20,  C3
 1310 DATA 52,49,43,48,41,52,44,20,50,2E,20,46,52,41,4E,4B,  F0
 1320 DATA 4C,49,4E,20,20,20,28,50,55,42,4C,49,53,48,45,44,  FB
 1330 DATA 20,49,4E,20,43,43,49,20,4F,43,54,2E,20,31,39,38,  97
 1340 DATA 37,29,20,20,20,20,20,20,20,20,20,20,43,41,52,44,  51
 1350 DATA 20,43,4F,55,4E,54,49,4E,47,20,4D,45,54,48,4F,44,  B9
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 1380 DATA 4E,53,54,52,55,43,54,49,4F,4E,53,20,46,4F,4C,4C,  AB
 1390 DATA 4F,57,49,4E,47,20,2D,2D,3E,20,20,20,20,20,20,20,  C7
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 1440 DATA 20,46,4F,4C,44,20,48,41,4E,44,20,20,20,20,20,20,  0B
 1450 DATA 20,20,20,20,58,20,20,20,54,4F,20,53,50,4C,49,54,  92
 1460 DATA 20,20,28,55,50,20,54,4F,20,34,20,48,41,4E,44,53,  44
 1470 DATA 21,21,21,29,20,20,20,20,20,20,20,20,20,44,20,  74
 1480 DATA 20,20,54,4F,20,44,4F,55,42,4C,45,20,59,4F,55,52,  A1
 1490 DATA 20,42,45,54,20,20,20,20,20,20,20,20,20,20,43,  3F
 1500 DATA 20,20,20,54,4F,20,56,49,45,57,20,43,55,52,52,45,  3E
 1510 DATA 4E,54,20,3E,43,41,52,44,20,43,4F,55,4E,54,3C,20,  5D
 1520 DATA 20,20,20,20,20,20,20,20,20,52,20,20,20,54,4F,20,  F2
 1530 DATA 52,45,53,54,53,52,54,20,47,41,4D,45,20,20,20,20,  E3
 1540 DATA 20,20,20,20,20,20,51,20,20,20,54,4F,20,51,55,49,  06
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1960 DATA 20,49,4E,53,55,52,41,4E,43,45,20,42,45,54,2E,2E, 0A
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3300 DATA 20,42,45,54,57,45,45,4E,20,32,20,41,4E,44,20,36, F5
3310 DATA 20,49,4E,43,4C,55,53,49,56,45,21,21,21,20,20,20, 8A
3320 DATA 20,20,20,20,20,20,20,49,46,20,54,48,45,20,44,45, A3
3330 DATA 41,4C,45,52,20,53,48,4F,57,53,20,37,20,41,4E,44, C5
```

cont. on next page

continued from page 123

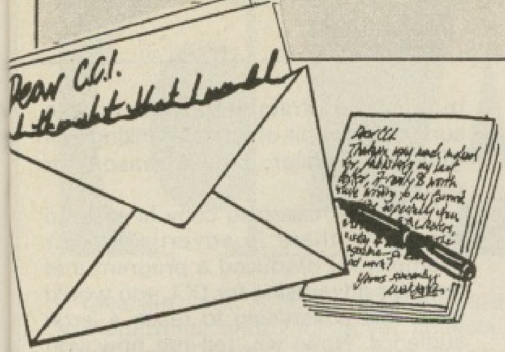
```
3340 DATA 20,54,48,45,20,43,4F,55,4E,54,20,49,53,20,41,54, E0
3350 DATA 20,2B,36,20,4F,52,20,4D,4F,52,45,20,44,4F,4E,27, 9D
3360 DATA 54,20,44,52,41,57,20,54,4F,20,41,20,48,41,4E,44, 9E
3370 DATA 20,4F,46,20,48,41,52,44,20,31,36,20,20,20,20,20, B9
3380 DATA 20,20,20,20,20,41,4E,44,20,49,46,20,59,4F,55,20, 18
3390 DATA 43,41,4E,20,52,45,4D,45,4D,42,45,52,20,41,4C,4C, 52
3400 DATA 20,54,48,41,54,20,54,48,45,4E,20,59,4F,55,52,20, 81
3410 DATA 4E,41,4D,45,27,53,20,50,52,4F,42,41,42,4C,59,20, B7
3420 DATA 45,44,57,49,4E,20,53,49,4C,42,45,52,53,54,41,4E, 45
3430 DATA 47,2E,2E,2E,2E,2E,2E,2E,52,49,47,48,54,3F,20,20, CB
3440 DATA 20,20,20,20,20,20,20,20,2E,20,3C,2D,2D,20,57,48, 6E
3450 DATA 4F,20,50,55,54,20,54,48,41,54,20,54,48,45,52,45, BF
3460 DATA 3F,3F,3F,20,20,20,20,20,20,20,20,20,20,20,20,20, 1C
3470 DATA 20,20,20,20,20,20,20,42,4C,41,43,4B,2D,4A,41,43, 54
3480 DATA 4B,20,28,43,29,20,31,39,38,37,20,42,59,20,4D,41, B5
3490 DATA 52,4B,20,49,20,4D,41,4E,4E,49,4E,47,20,49,56,A0, 42
3500 DATA 8F,4C,41,59,45,D2,46,49,4E,49,53,48,45,C4,42,55, 2F
3510 DATA D4,44,4F,45,D3,44,45,41,4C,45,D2,48,41,56,C5,54, D3
3520 DATA 4F,80,48,10,D0,50,4C,41,D9,48,49,D3,48,A9,34,85, 8E
3530 DATA 01,A0,00,B9,00,E0,99,00,70,C8,D0,F7,EE,D8,FF,EE, 13
3540 DATA D5,FF,D0,EF,A0,07,B9,F2,FF,99,00,C0,88,10,F7,4C, 2B
3550 DATA 00,C0,A9,37,85,01,4C,00,70,00,00,00,CD,FF,CD,FF, A5
3560 DATA 2F,34,00,00,00,00,00,00,00,00,00,00,00,00,00,00, 08
```

MOB Positioning

A.A. Protano

This is a nice easy way to position your sprites. Don't forget to turn them on!

```
1 REM *********************************
2 REM *         MOB POSITIONING       *
3 REM * USE SYS 49152,X-POS,Y-POS,MOB *
4 REM *  TO RELOCATE CHANGE VAR' A    *
5 REM *********************************
9 A=49152:S=0
10 FORT=0TO74:READD:C=C+D
11 POKEA,D:A=A+1:NEXTT
12 IF C<>8612 THENPRINT"DATA ERROR"
100 DATA 032,253,174,032,138,173,032,247
110 DATA 183,032,000,226,138,072,032,000
120 DATA 226,224,008,176,049,164,021,192
130 DATA 002,176,043,138,010,170,104,157
140 DATA 001,208,165,020,157,000,208,138
150 DATA 074,170,232,169,000,056,042,202
160 DATA 208,252,166,021,208,009,073,255
170 DATA 045,016,208,141,016,208,096,013
180 DATA 016,208,141,016,208,096,104,076
190 DATA 072,178,096
```



Dear CCI
Reading through the letters pages of your magazine, I cannot help but notice the amount of complaints directed at software houses, the programmers, the games and even the magazines that review them. Whilst many of these complaints may be founded in my opinion the party guilty of commiting the most appalling atrocities as far as the Commodore world is concerned is in fact CBM themselves. Ironic to say the least.

CBM have been churning out domestic computers since 1979 and though the 64 is the best selling home computer in the world, they have given little or no support whatsever to end users. The state the PET, C16/+4, VIC and 128 users find themselves in at the moment is mainly due to the fact that there is a lack of good software for them Commodore should take the lead and develop some decent software for these machines then maybe sales would increase and software houses would be more willing to commit themselves.

As far as the 64 is concerned Commodore can thank their lucky stars that the machine did not flop. The machine is incredibly difficult for beginners to get to grips with PEEK and POKE being the only two sound and graphics commands available and it is only through the continued support of software houses and companies such as DATEC and EVESHAM that it has succeeded. When problems arose such as the 1571 ROMS fiasco Commodore made no real attempt to rectify the situation even when ICPUG offered to help distribute bug free ROMS. It's time that Commodore realised where their profits come from. Computing should provide enjoyment, and in some cases profit. Software houses generally provide enjoyable and entertaining material and reap the rewards. Commodore have taken everything out of the industry without putting anything back. I would be pleased if CBM could comment on this as I have written numerous letters to them (with an SAE) and never received a reply.
Thank you for reading this letter.
Yours Sincerely
Stephen Woran, Eire

Dear Stephen
Well, you certainly have built up some frustrations, haven't you? This is not to say we don't agree with what you say. Commodore certainly have made a botch of a great many things in their time. But in their defence, they are acting in a fast changing and very often unforecastable, even uncontrollable world market. So it is not surprising that their business alters direction and leaves behind casualties — either computers or the people who have been unlucky enough to buy them. Where there is no excuse is in not facing up to these problems and explaining themselves or their reasons. The lack of replies to you is an example of this both bad manners and bad for business. However, taking your letter seriously, we passed it on to Commodore U.K. for comment. We always like to play fair. That was over two months ago. In spite of representations to them and to their P.R. consultancy no answer has been forthcoming. We have repeatedly requested an answer and offered space to them to make a reasonable reply. What we have got is zilch, a great big silence. Why? Shame? Laziness? Contempt for you, us or their buyers and, supposedly, loyal customers?

In this case we can't answer and it seems Commodore U.K. won't. The Government of the U.K. have just brought in an edict that says in the Courts, especially in poor old Northern Ireland if an accused remains silent the jury may consider that as a possible indication of guilt. The position of refusing to answer criticism seems like a foolish attitude for Commodore to adopt because the jury in this case is the people it depends on for its continued existence. CBM is often unjustly criticised but here we have seen them acting very stupidly indeed.

Dear CCI
Have you seen the CCI classifieds recently? Your magazine appears, nay, is encouraging software piracy by printing ads for swapping software. Nearly all swapping of software involves illegal duplication, many people offering dozens, even hundreds of priated stuff.

For instance, I asked a serious pirate friend how him and his mates get so much up to date stuff before it's realised in the shops. His reply went something like this:

"I get s——— to copy them for me. He gives me a list of the latest stuff and I then give him a list of what I want plus a box of disks. I only got Star Treck (Firebird) for the 64 last night!"

At this point I cut in and ask where s——— gets his stuff from. He replies:

"From contacts in the U.K. and Sweden."

I ask how these contacts are found. He answers:

"Some are relations or friends or friends, but most were found through reading the classifieds in U.K. magazines such as CCI and C&VG. After a contact is found to be offering a good selection, software is usually sent to and from the U.K. by air mail, Hell, I had leaderboard three months before it came out over here!"

Pirates are easy to spot, phrases like the following are often used:

"... swap software all latest titles ..."

"... wants new swappers, must have very very latest stuff, no beginners ..." (down under, "beginners" in piratical terms means people who have little knowledge of the subject and less pirated games, tending to offer in exchange for up to date stuff, old, extensively copied junk. I'm pretty sure it has the same meaning in the U.K.).

"... send lists or disks ..."

"... got all the news ..."

Anyway, nearly half of the ads were for disk game swapping and at least half of those wer sus, why not 'phone randomly and just ask something like:

"Hope you've got the latest stuff, do I know any of your other contact." or "Which copier do you use?"

- Enough about piracy ...
- Why not do company profiles on the smaller outfits such as Alligata or Atlantis, Bubblebus etc.
- Why not have a disk/tape magazine holding readers program submissions? One Australian Commodore magainze does this to save magazine space and includes freebies such as demos and P.D. software.
- Whatever happened to Tony Crowther?
- Is Orpheus Ltd. still around?

It seems that Jeff Minter has left the '64 for the ST. A pity, I like his '64 games and have bought nearly all of them, Ancipital and a few VIC conversions I still have to get.
See Ya!
Marc Walters, Australia

Dear Marc
You are absolutely right and we are — were — wrong npt check those classified ads well enough. Quite clearly many that were appearing were for the illegal copying that you so sharply describe. We have done a combing job through them and checked out a number and you will find that those asking for swaps are now as genuine as we can make them. So take warning you pirate swappers, we are not accepting classified ads. — free or paid — that are offering anything illegal and we will report anyone we suspect to the necessary authorities for action to be taken against them.

Thanks, Marc, once again for pointing

cont. on next page

it out to us, you get the £10.00, the free games, and the CCI Tee-Shirt for the letter of the month.

Dear CCI

May I first say that I read your magazine every month and take great interest in all the comments made on reviews.

However, after reading Dec. Issue, I feel I must comment on a review which was featured.

Upon reading 'Sub Battle Simulator', which I already have a copy, it was apparent to me that the version tested was a disk based one. The cassette version is nowhere near what you stated in your review.

As an example:

1. There is only the Pacific Scenario to play on the cassette version, and although even the instructions contained within the game talked about a German Scenario, I could not find it anywhere.
2. I was not able to play the full war version by the Pacific Scenario, the only options there where target practise or single mission.
3. Only half of the screens stated were included, there was no trace of the conning tower, side on display and binocular views.

I appreciate that cassette versions do not always have the same amount of data on them, because of length of loading time etc, but both your review and the Epyx instructions are misleading the reading public that both versions are the same, which is not true.

I also realise that it is not always possible to play test both versions of a game, however I do think you could mention the difference in versions and rate them accordingly.

This has also happened on 'The President Is Missing' cassette, where half of the options were missing, "so the President had no chance!" I returned this to my local dealer, and exchanged it for sub battle simulator, only to find exactly the same thing (although with the President, 1 cassette version was totally unplayable).

I think the games manufacturers should point out on the packaging that the versions are different, so as not to mislead the buyer.

However, if I want to play such high quality products to the full, I will have to purchase a disk drive, although some people may not be able to afford one, and would have to settle for products on cassette which do not do what the instructions and reviews say that they do.

M. Dunkley, Lancs.

Dear M. Dunkley,

*This a **Mea Culpa** month, you are, of course, right to tell us that very often the cassette versions differ substantially from the disk, and it looks like you have been particularly unlucky in your choice of games. They seem like the most complicated ones and possibly the most interesting too which makes it all the more frustrating for you. Disks, as everyone knows offer technically huge opportunities compared to cassettes and most software companies from other countries hardly believe that in the U.K. we are still largely a cassette-based computer-using population. That's probably because they regard computing as more than just for 'kids to play with' — as it has sadly often been thought of here.*

Yes, you are right in saying that software houses, and we too should be careful to emphasise the differences. Although unfortunately we are often only supplied with one version while the company takes time to release the other.

So the best that can be advised is to save up for a drive — or scan the classified ads for a bargain — when you get one you'll wonder how you lived without it.

Dear CCI

I have a C16 Plus 4 which means I find it difficult to get new tapes. However, I was wondering if I could get hold of 4 computer tapes I have always wanted they are called: Airwolf, Paperboy, Flintstones and Chuckie Eggs 2. Please, please, please could you send me some information about how I can obtain these tapes and how much they cost etc. I would be more than grateful.

Thanks from

Miss Trudy Cawthorne, Cambridge

Dear Trudy,

*Well, you **are** going back in time . . . The best thing you can do is contact the manufacturers. For Airwolf and Paperboy; Elite Systems Tel. 0543-414188. For Flintstones, Grandslam, Tel. 01-247-6434. For the old Chuckie, P&C Ltd, Tel. 061-831-7922. Although it is not easy to find C16 games or any other C16 software these days, many of the manufacturers still have C16 stuff in stock, so if you contact almost any of the big games houses they will probably be able to send you games direct — if you pay for them, of course!*

Dear CCI

I recently read your article about software piracy in CCI. Although I do not agree with your entirely. I do find your opinions more open-minded than most.

For years I have believed software piracy is just a way of thinking. Copying software only becomes piracy when someone says you can't copy it. this may sound straight forward on the surface but a bit of lateral thinking will give the answer: Find a reason for copying.

Finding a reason to copy is easy, to start with there is advertising. For example, if I produced a program that includes advertising for CCI, you would want that advertising to reach a large audience. Now, you tell me how you could do that? In other words, you're selling your product, not the software.

This line of thought has other benefits. You only have to produce a handful of originals and the rest is done by the "pirates" (what were you saying about 8 out of 10 people prefe piracy).

Also, the advertisers would put more money into the development of better software. This is obvious because the better software would be copied and used more regularly. Why can't the best word processor be sponsored by Pepsi?

I have had VERY strong views about software piracy in the past and can not believe how narrow minded people can be. perhaps I should have shouted a long time ago but it's better late than never.

I would really like to hear other peoples views on this. Please can you do a follow up article. At least print this letter with my address.

Thank you for your time. Look forward to hear from you soon.

Yours sincerely,

Mark Ford, Luton

Dear Mark,

Peter Gerrard's article on Piracy was expressing his own opinion. Although many people, we are sure, share it. You are right in saying that if you want an advertisement to work it has to reach out to as many people as possible, but if you are producing something original — like Peter Gerrard's article itself, you — or he — are entitled to receive the proper reward for it. The same applies to 'created' software — or anything else that is not selling — or publicising something. but your idea of sponsorship for software is already being taken up by the recently reported U.S. Gold/ Pepsi Cola link up. Although there is always a trade-off in that sort of thing too. Such as sporting events being wrongly, in our opinion, allowed to be sponsored by totally inappropriate organisations like tobacco companies. We would certainly, like you, be interested in hearing other people's opinions on the subject.

Do CCI readers want sponsorship by tobacco companies, for instance, so that they can have cheaper software? Should piracy be freely allowed? Or should pirates be strung from the yardarm? Let us know what you think.

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Clearing out. 160 = Commodore magazines. only £70. Buyer collects. Mr. Paul Eeves. 3 Stonecross House, Gamble Rd, Portsmouth, Hants.

Swappers C64 freak wants to swap only the hottest stuff. No beginners. All letters will be answered. No beginners. All letters will be answered. Send discs or lists to: Raymond Sivertsen, Tverrelvdalen 9500 Alta, Norway.

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C64 penpals wanted all over the world. Please write to: GE Mater PO Box 1704 Belville 7535 S.A.

Wanted for 64/128 a copy of multiplan spreadsheet, plus manual. Also

Wanted Amiga Contacts. All letters answered. Write to Mikael Kvale, Kirkegaten 26, N-4890 Grimstad, Norway.

Canadian Wants To swap info. Discs and lists to: Tom Slama, 1203 Glenora Drive, London, Ontario, Canada, N5X 2P6.

C64 Users all over the world. Latest stuff on discs etc. Send discs and letters to 'Alpa One', Lancaster Gate, 100 Flat 19, London W2, England.

For Sale, C64, 1541 disc drive, datasette, two joysticks, 20 blank Maxell discs and games, £255. Could deliver. Phone (0203) 304588.

C64 owner wants to swap software all over the world. Disc only to David Rowlands, 128 Ladywood Road, Modbury Heights 5092, South Australia OZ.

C64 User wishes to swap games and lists. Send discs and list to: Dave Lewis, 185 Foxborough Gardens, London SE4 1HS.

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C64 owner wants to swap games, all over the world (discs only), send lists or discs to: Dave Hankins, 43 Malvern Road, Goole, Humberside, DN14 5HU, England.

New Amiga user wants to contact other users to swap hints and software etc. Letters, discs, lists etc to: Wayne, 42 Menai Way, Trowbrige, Cardiff or Tel (after 6pm) (0222) 791854.

Amiga 1081, VDU for sale at £180. Tel. A.J. Clayton on Fleet (0253) 621609 after 7.30pm.

C64 Expert cartridge user wants to swap games demos, discs only to: G. Letting, 91 Micklow Close, Redcar, Cleveland TS10 4NS.

C64 Owner wants to swap software all over the world. Discs only to: Kjetil J. Slattli, Virak E6- 41 8520 Ankensstrand, Norway.

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AMIGA user wants to swap the very latest stuff. Send discs to. Tore Fredriksen. 23,9400 Harstad Norway.

AMIGA user wants to swap all the latest hot stuff. 100% reply. Overseas welcome. Please write to: The Hollies, Shefford, Beds, SG17 5BX.

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C64 Seikosa Printer, Datasette, psu, all boxed tape software for only £160 ono. Phone now. Bob on 0274-602993.

C64 user wishes to swap software on disc with other user. Send to: Paul Dyson 48 Askam Ave, Pontefract, Wet Yorks WF8 2PN.

AMIGA A500 plus 5.5 disc drive and software, boxed as new and still under guarantee. Will sell for £500 ono. Tel. 01-571 9324.

Calling world wide Amiga users send me your best, I'll send you the best of the rest. Send disc to: Ror, 17 Rosedale AVe, Blackpool, England. FY4 4HR. or Tel. 0253-64178.

Swapping crazy. We have a long list (over 1000) on the C64 disc and we want more contacts. Please send letter to: Svein Willassen. Rekdalsvegen 32, 5069 Stravnserend, Bergen, Norway.

USA Amiga owner would like to sell originals: Dragon Lair, Capitain Hybris, Rocket Ranger, etc. Contact: Morgan, 100 West 83rd St. New York, 10024 USA.

For Sale CBM 128, 1570 disc drive, £100 worth of software, joystick, books, mags. etc will sell for £350. Tel. John 0532-774138.

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NORWEGIAN software is a comp. club for people of all ages. Are you interested? Write to: N/S c.o. Tor-Einar Sarnbjo. Lundsalleen 26B, N?2000, Lillestroem, Norway.

Amiga owner wants to swap software with anyone around the world. Send lists + discs to: Steve, PO Box 1730 QLD. OZ. All letters answered.

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C64 and 1541 drive for sale. £60 each. Tel. Larbert. (0324) 556993. Evenings only.

HERE'S MY CLASSIFIED AD . . .

information about how I can obtain these tapes and how much they cost etc. I would be more than grateful.
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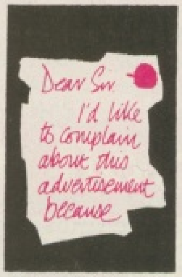
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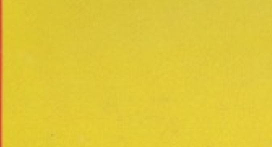
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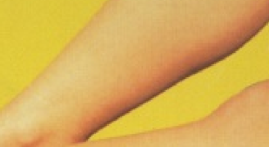
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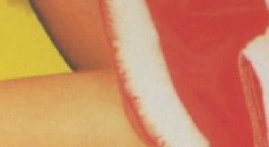
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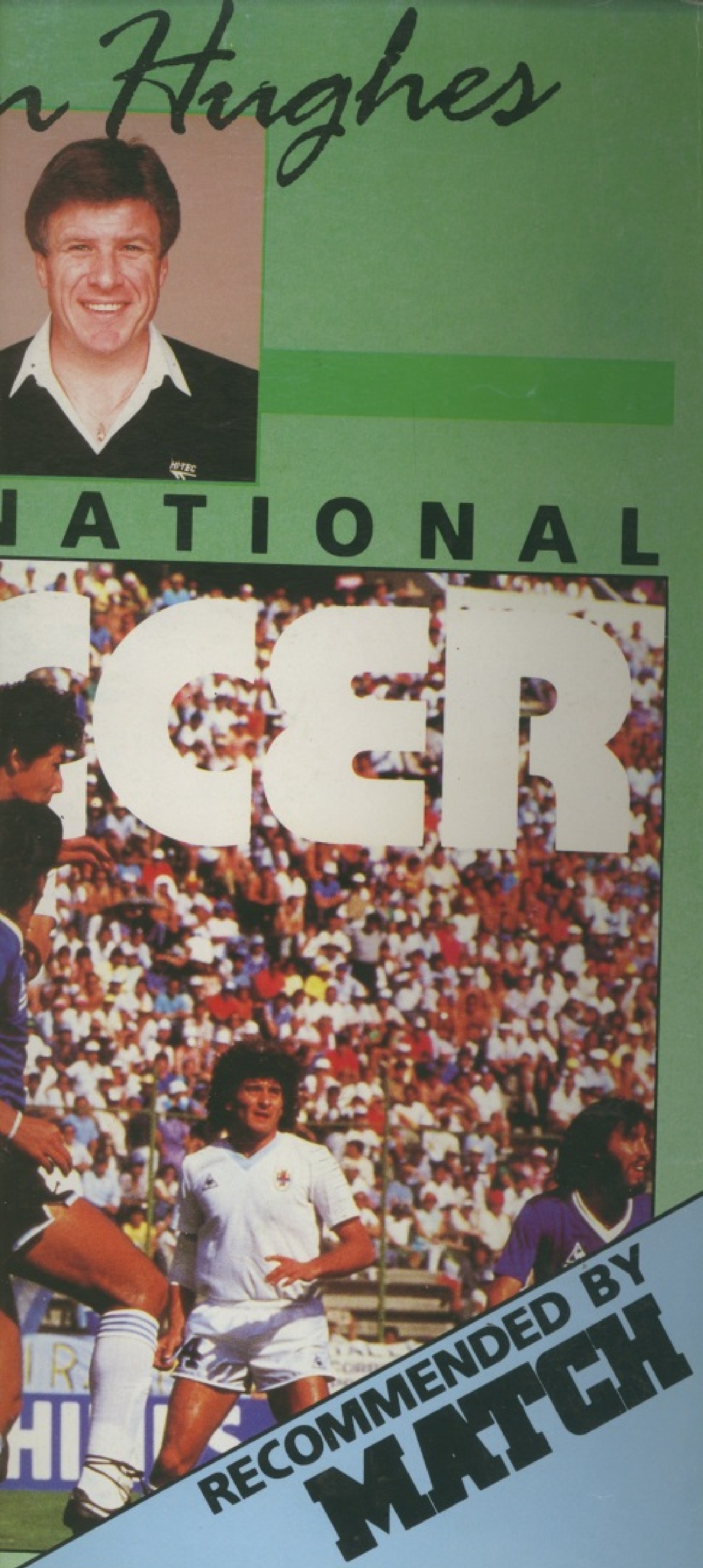
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